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GUEST EDITORIAL

Language support in EAL contexts. Why Systemic Functional Linguistics?

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The Open University

As teachers and educators working in the field of English as an additional language, readers of this special edition will know better than most how language can stand between a student and success in school learning. However, questions concerning the kind of language support to provide, the extent and timing of that support and who should provide it are vexed questions. In particular the first question (what kind of language support should be provided) has many implications for curriculum development, departmental strategy, classroom pedagogy, text book design and approaches to assessment. One major issue is how explicitly or implicitly the language support should be, and related to this, what kind of language for talking about language (what kind of meta-language) is needed – both by teachers and by students.

In the context of EAL learners operating within a school environment (be it primary or secondary) one way of probing issues concerning language support is to first ask ‘what kind of language do students need in order to be successful in their learning of school subjects?’ and secondly ‘what kind of language in teacher-student and student-student dialogue facilitates the learning process?’

Of course, these questions can be answered in broad terms. Ever since (and probably before) Cummins coined the notion of Cognitive Academic Language Proficiency (CALP) as distinct from Basic Interpersonal Communication Skills (BICS) (Cummins, 1979) most language teachers have worked with the conscious knowledge that academic language is quite distinct from the informal, interactive language of spontaneous face-to-face interaction and have aimed to develop both types of language competence in their students. To answer the questions with any specificity, however, we need a way of describing language that can distinguish in precise terms, how the two uses of language (CALPS and BICS) differ – both in form and

function. There are a number of models of language and grammar to choose from and some of these are referred to in the article by Beverley Derewianka and Pauline Jones. In Derewianka and Jones’s article and across the special edition as a whole, however, the approach to language explored and illustrated in detail is that developed within systemic functional linguistics (SFL). The aim is to show how SFL provides an orientation to language that many educators find relevant and useful. Fundamentally, it provides tools for educational researchers, applied linguists and teachers to a) analyse the ways in which language builds academic knowledge in different school subjects and b) use such analysis to inform teaching-learning activities and strategies.

The goal of this special edition is to make the case that using the theoretical lens of SFL helps us to see (and in some cases ‘re-see’) language as fundamentally a tool for thinking with, a meaning-making resource (as opposed to, for example, a set of rules). By providing a set of labels for describing texts and clauses in functional terms it also enables teachers to make visible and explicit to students (where relevant) how texts make meaning – both the texts that students need to read and the texts they need to write – as they move across the curriculum and through schooling.

Mary Schleppegrell’s article is a good example of this: we see how a narrative uses different kinds of grammatical resources as the text unfolds (e.g. more active doing processes in the main part of the story and more reflective being and sensing processes in the final evaluative stage). In this way, by looking at a narrative text through the lens of SFL, teachers can pinpoint how grammar functions to make different kinds of meaning at different points in a text and by devising activities that bring out the relationship between grammar and meaning they can orient students to grammar as a resource for understanding and producing texts.

Although not the main focus of this edition, SFL can also provide insight into the way language is used both more, and less, effectively in the dialogues that occur between teachers and students and amongst students. Some attention is given to this in relation to pedagogic design in the article by Beverly Derewianka and Pauline Jones and more specifically in relation to scaffolding in Sheena Gardner’s article (and elsewhere the subject is discussed in greater depth e.g. Coffin et al, 2009 in relation to online discussion forums, Gibbons, 2006, Hammond and Gibbons, 2005, Rose, 2005, 2007). It is important to note that

dialogue and interaction are central to Michael Halliday's theory of learning. That is, for Halliday (the main architect of SFL), learning a language is not so much a process of acquiring a commodity that is 'out there' but rather a process of 'construction in interaction with others' (Halliday, 1980/2003). This is a view shared by the psychologist L.S. Vygotsky (1896–1934) mentioned in a number of articles. Vygotsky argued that learning and mental development need to be viewed as a social process: it is through the interactions we enter into with other members of our culture, particularly those more knowledgeable or proficient, that we make sense of the world and learn new (usually culturally and socially specific) ways of seeing, doing and being. Thus patterns of interaction between teachers and students (not dissimilar to parent-child interaction) can be a powerful resource in scaffolding students' learning of language as well as their learning about and through language.

To return to the question of 'what kind of language do students need in order to be successful in their learning of school subjects?' the tools of SFL have been used by a number of researchers and teacher educators in order to systematically describe and explain how and why different subject areas (such as history, science or English) use grammar in quite distinct ways to build their different understandings of, and different orientations to, the natural and social world. This is an area – learning through language - that I have discussed in a previous issue of NALDIC Quarterly (Coffin, 2006) and publications continue to emerge providing new SFL based insights into the nature of different kinds of knowledge (and subject areas) (see the subsection within the list of references: The language of school subjects). One particularly interesting recent development in this area of endeavour is the coming together of sociology of education with systemic functional linguistics (e.g. Christie and Martin, 2007) in order to better understand the knowledge structures of different disciplines and school subjects alongside the role of language.

The articles that follow in this edition are by those who have extensive experience in applying SFL to school contexts where learners have English as an additional language (EAL) or, in Rachel Whittaker's case, where learners have English as a foreign language. Whilst making visible how language functions in building content can be particularly helpful in such contexts I think they would argue, as I would, that an awareness of the literacy demands of school subjects is in fact

important for all teachers, regardless of the linguistic background of their students and regardless of whether they are a subject or EAL specialist. This is because the ability to see how language shapes our construction of the world and experience, our relationship with others and the packaging and organizing of our messages and meanings places teachers and students in a strong position to reflect critically on the language interactions they participate in, the texts they read and they write (and very often in the case of teachers, the texts they choose).

Below is a simple example of how extending our labelling beyond traditional form focussed classifications can illuminate underlying points of views and values which speakers and listeners may only be dimly conscious of. Consider the following sentences:

- a) Traditionally, fishermen used to catch 100, 000 tons of fish per year in the North Sea.
- b) The North Sea used to provide 100, 000 tons of fish per year.

Above are two representations or 'construals' of the same 'slice' of reality i.e. fishing in the North Sea. In sentence a) you can see that there is an action initiated by fishermen, the subject in traditional grammar or, in functional grammar terms, the Actor i.e. the person or people doing the action. You can also see that the natural world is referred to in a prepositional phrase - in the North Sea (functioning as a Circumstance in SFL) rather than being represented by an Actor. Sentence b), in contrast, is a representation where it is the natural world which plays the Actor role. Here the natural world is not relegated to the role of Circumstance and there is no human Actor.

The two sentences illustrate how grammatical choices may be related to different ways of viewing the world. Sentence a) for example could readily be tied to a perspective where people operate on nature, where nature is somehow separate from humans. Such a perspective could help to legitimise humans' domination of nature, taking 'resources' from it. Nature is just a 'place' where people obtain what they need. Representations or construals such as in sentence b), in contrast, place nature instead of humans in a focal position and move away from the idea that humans dominate and exploit nature. With the first sentence, questions may arise such as: Why don't fishermen catch so much fish anymore? Is it something to do with the fishing industry? Are there fewer fishermen these days? With the second sentence, questions are perhaps more likely to be nature focused rather than human

focused, for example: What's the problem with the North Sea? Why doesn't the North Sea yield so much fish anymore? The questions show concern over the effects of the domination and consumption of nature. Different choices in grammar thus provide different orientations to the natural world and this is an aspect of language use that can be exploited across all school subjects.

Increasing students' language repertoires and thus expanding their meaning making resources, as well as developing their sense of the ideological nature of all language use are the fundamental goals of SFL based language support. The articles in this special edition are practical illustrations of how this can be done in classrooms in schools. The edition starts with a lucid explanation by Beverley Derewianka and Pauline Jones of how systemic functional grammar (SFG) relates to other models of grammar, as well as how it is different (see also Coffin et al 2009 for a text book introduction to these similarities and differences). In particular, they outline what they have found to be useful features of SFG in language teaching contexts – namely the interpretation of texts in relation to their contexts of use, the use of the construct 'genre' to characterize the purpose and staging of different types of texts and the organization of grammar in terms of three major functional dimensions (c/f the long lists in most reference grammars of grammatical classes and structures). These features, they argue, facilitate the integration of language and content in planning lessons and help to inform effective pedagogic design.

Nominalisation is one of the language resources that is picked out for special attention by Derewianka and Jones: coming to grips with nominalisation, they suggest, is essential for gaining control over the decontextualised language of academic knowledge. In the article that follows, Brian Dare reiterates the significance of nominalisation, making the case that alongside the nominal group, it is taken up most readily and to great effect by teachers and students. Brian shows how an understanding of both the nominal group and nominalisation can be gradually built up through carefully designed questions and activities. Throughout his article he makes the argument that the slow build up of meta-language provides teachers and students with an in depth and robust understanding of how language works. It is in this sense, he states, that meta-language (following Jim Martin, another key figure in SFL) can be viewed as 'scaffolding that sticks around'.

In the third article in the volume, Mary Schleppegrell focuses on another area of the

language system – transitivity - in order to show how an explicit focus on the processes (the doing, thinking, saying or being verbs) and circumstances (the when, where, how and why around the process) can deepen EAL students' reading comprehension as well as guide them in making effective language choices in their writing. Again, like Brian Dare, Mary argues that the use of meta-language is crucial: it helps to make explicit the "content" of each stage of a genre and it provides students with guidelines for evaluating each other's work, making interaction about their writing much more successful.

In Rachel Whittaker's article we see a focus on Content and Language Integrated Learning (CLIL). Rachel takes up the SFL position (discussed earlier) that knowing disciplinary content includes knowing the language of the discipline, and that knowledge is created in and through language. She argues that the focus on content is what triggers the use of language and gives meaning to the need for and use of both receptive and productive skills in that language. However, she points out that in CLIL contexts teachers often find themselves teaching their specialist subject in a language they are not fully competent in (in her case teachers with Spanish as a first language teaching history through English). Her article shows how a model of language such as SFL can support such teachers in their task of simultaneously teaching content and language by revealing key features of the discourse of their discipline. Also, by collecting and then analyzing and reflecting on students' use of language both in spoken interactions and in written assignments, teachers can learn to make timely interventions that support students in constructing the meanings they need in the subject (and in ways that go beyond simply providing the technical vocabulary of the subject).

Sheena Gardner's article focuses on the use of SFL in assessing students' work in ways that support their learning. The question of assessment is briefly addressed in the opening article of this special edition but here Sheena takes a detailed look at how groups of students reporting on the writing of story endings provides an opportunity for dynamic assessment i.e. feedback from teachers which inform students' development of their writing. In particular she suggests that an SFL informed awareness of language would help teachers to check whether the questions they ask are designed to respond to what the learners say, and move them forward linguistically by raising their awareness of the relationship between grammatical choice, meaning and context.

In the final article of the edition John Polias picks up an issue first raised in the opening article—whether SFL can be applied to multimodal or multisemiotic texts i.e. texts drawing on meaning making (semiotic) resources beyond language such as image or sound. In his article, John coins the innovative concept of pedagogical resonance to make the point that if different semiotic resources work in unison then learning is likely to be more effective. He provides several examples of how visual and verbal meaning in a range of genres (such as reports and explanations) can be patterned such that each resonates with the other thus maximising pedagogic impact.

In general, the purpose of this special edition is to provide some concrete examples of how a linguistic theory such as SFL can provide both a lens and a set of tools for deepening one's understanding of the role of language in meaning-making and in learning. Increasing a consciousness of some of the complexity of language and understanding how it builds and communicates meaning in educational contexts is, we would argue, of enormous value to all teachers and learners, particularly those working in the context of EAL.

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POLICY, PRACTICE AND RESEARCH

From traditional grammar to functional grammar: bridging the divide

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This paper describes our experiences using systemic functional linguistics to teach English in Australian educational settings over the last three decades. We suggest there is a continuum of approaches to describing language and highlight what we consider to be the significant affordances of a systemic functional grammar for English language teachers. With its dual emphasis on meaning and form, we argue that the model provides powerful tools for identifying curriculum priorities, for designing pedagogy and for assessing learners' accomplishments and needs. Most importantly, it offers a means of making language explicit to learners in the form of an accessible and flexible metalanguage (i.e. a language for talking about language). However, we also discuss some evolving and unresolved issues arising from our experiences in terms of curriculum, policy and professional support for teachers.

Which grammar?

Debates around the teaching of grammar continue to erupt in the field of English language teaching. Should grammar be taught at all? While it has been argued in the past that grammar instruction is not necessary for language acquisition to take place (for example, Krashen 1982; Prabhu 1987), more recently general support has emerged for some form-focused instruction (Andrews 2007; Snyder 2008). In this paper we are not concerned with whether grammar should be taught but rather

how it should be taught. Implicitly or explicitly? Incidentally or systematically? Analytically or synthetically? Proactively or reactively? As part of teaching subject knowledge or on its own? And which model of grammar to use? In educational contexts, the debate around the choice of grammar is often framed in terms of 'traditional' vs 'functional'. We will argue here that such a framing is misleading and simplistic. We could range most descriptions of language that are typically found in English-teaching contexts along a cline between 'form' and 'function' (as in Figure 1). At the 'form' end of the continuum, we might find those traditional school grammars which focus primarily on the 'parts of speech' and syntax. At the 'function' end of the continuum, we could place the notional-functional syllabus – which, even though no longer in common use, has had a lasting impact on the field. And around the middle, we might find a number of contemporary reference grammars – including Halliday's systemic-functional grammar (SFG) – which endeavour to describe the relationship between grammatical forms and their functions.

All these language descriptions include reference to both form and function – it's a matter of orientation and emphasis. The orientation of traditional school grammar is towards the learning of structures and rules. It draws on grammatical categories such as noun, verb, pronoun, adjective, adverb, conjunction and preposition – with the occasional nod towards meaning ('a noun is a person, place or thing') and grammatical function ('the subject of the verb'). At the other extreme, the notional-functional description – though not technically a theory of grammar – emphasizes the intent of the language user: what people need to *do* with language and what *meanings* they want to express. Although its orientation is communicative, it does attempt to demonstrate how the various functions and notions can be expressed through certain grammatical forms. The notion of frequency, for example, is linked to such exponents as 'adverb', 'present (habitual) tense', or 'adverbials'.

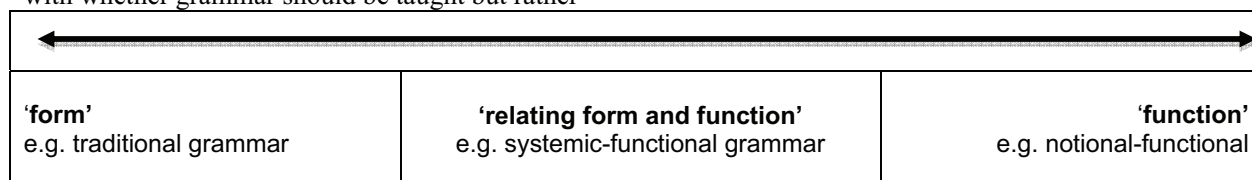


Figure 1

Towards the middle of the continuum, Halliday's systemic-functional grammar (Halliday and Matthiessen 2004) provides a bridge between 'form' and 'meaning', mapping systematically and in detail the relationship between grammatical classes and the functions they perform. While the orientation is firmly functional, the emphasis is placed equally on grammatical forms and on the meanings they make: how the grammar has evolved in particular ways to construe various kinds of meanings. At the level of form, SFG uses standard terminology to describe the grammatical classes ('preposition', 'conjunction', 'noun', 'verb' and so on). Unlike traditional grammar, however, it does not stop there – it is double-layered, constantly shunting between form and function, between grammar and semantics.

Of the other modern reference grammars around the mid-point of the continuum, some are more structurally-oriented (e.g. Huddleston and Pullum 2005) and others more functionally-oriented (e.g. Biber, Conrad and Leech 2002 and Willis 1995). They all, however, go beyond the more syntactic orientation of traditional school grammar. To deal with the problems associated with adverbs in traditional grammar, for example, most now use the term 'adverbials' in recognition of the fact that different grammatical forms (such as adverbs and prepositional phrases) can have a similar function. Similarly, certain modern grammars use terms such as *adjunct*, *subjunct*, *disjunct* and *conjunct* (e.g. Crystal 2004) or *circumstance*, *stance* and *linking* (Biber, Conrad and Leech 2002: 361) to capture differences in adverbial meaning. In relation to verbs, The Longman Student Grammar of Spoken and Written English (Biber, Conrad and Leech 2002) discusses not only the form of the verb, but also the various kinds of meanings that verbs express: activity, communication, mental processes, causation, relations, and existence. The CoBuild Students' Grammar (Willis 1995) similarly describes verbs in terms of such functions as saying, thinking, liking and linking. At the level of the clause, some (e.g. Huddleston and Pullum 2005: 69 and 73; Biber, Conrad and Leech 2002) venture beyond the conventional grammatical functions of Subject and Object to discuss the clause as representing a situation in which various participants are involved, depending on the type of activity (e.g. the 'actor' in action clauses, the 'experiencer' in clauses about sensing; the 'causer' in clauses dealing with causation). There is also attention paid to the way in which the clause functions to package information – how the focus is changed through strategies such as pre-posing and post-posing, the use of the passive, and so on.

Furthermore, most reference grammars now include a section that goes beyond the clause to deal with issues at the level of the text, such as how certain resources function to make a text cohesive.

While these grammars include reference to functions of various kinds, the overall grammatical description is typically organized according to grammatical classes. Halliday's grammar, on the other hand, is organized around the question of how language functions to construe various kinds of meaning.

Systemic Functional Grammar

It is evident that the choice of a model of grammar is not simply a matter of 'traditional' or 'functional'. It is more a matter of what we want the model to do for us and our students. If, for example, our students need simply to learn the structure of English sentences with a focus on syntactic accuracy, drawing on familiar (though basic) terminology shared throughout the profession, then a traditional grammar will probably suffice. These days, however, there is considerable pressure on teachers of English as well as subject teachers with large numbers of EAL students in their classes to go beyond 'well-formed sentences' and to help their students operate successfully in a range of discourse contexts. This is where SFG has struck a chord among many practitioners, in that it provides a more 'comprehensive package', informing all areas of the language curriculum rather than being taught as a discrete 'topic'. In the following section, we will outline what we have found to be useful features of SFG for English teaching.

Texts in context

While most other grammars tend to restrict themselves to the level of the sentence (which is technically the domain of grammar), SFG ranges beyond the sentence to observe patterns of grammar within and across whole texts. Further, the model interprets texts in relation to their contexts of use – both the broader cultural context and the more specific situation. It seeks to describe how language choices are influenced by particular factors in the context: 'what's going on?' (the **field** or subject-matter), 'who's involved?' (the **tenor**), and 'what channel of communication?' (the **mode**). Together these form the **register**. To these, following Martin (see Christie and Martin 1997), we could add 'what's the social purpose?' (**genre**) – which describes how a text unfolds in stages depending on what the interactants want to achieve.

For example, the text presented below is an instance of an explanation genre from the Science curriculum in the early years of schooling. As part of an investigation of simple machines and after extensive exploration of the explanation genre with her teacher, the young language learner had been asked to construct a labeled and captioned diagram to accompany a talk explaining how an umbrella works. In this way, she and her classmates are being prepared for encounters with

more extended written explanations later in schooling. This text exhibits important features of these more sophisticated forms of the genre. It unfolds through a series of stages functionally identified as *the phenomenon identification* and *the explanation sequence* and includes an annotated diagram similar to those that appear in textbooks and other reference sources in the discipline of Science.

SPOKEN TEXT

ACCOMPANYING POSTER

Title¹

How an umbrella works

Phenomenon Identification

An umbrella is a simple machine for keeping people dry when it is raining

Explanation sequence

It has a handle to hold the umbrella up and the waterproof nylon cover helps you not get wet. And the clip holds down the umbrella safely. When you press the button, the springs shoot up. The struts spread out and open the cover.

The stop um um there (pointing)... stops the umbrella from closing when you don't want it to.

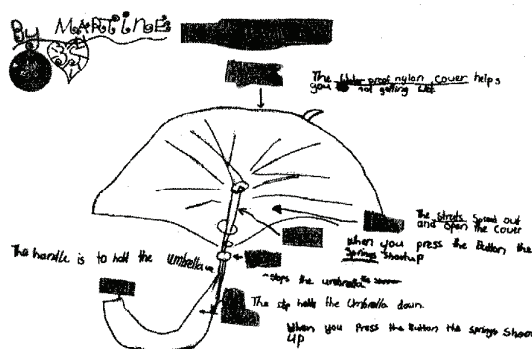


Figure 2

The register of the umbrella text may be described in the following terms:

Contextual factor	Relevant language features
Field – naming the phenomenon, its parts and the functions of these parts.	<p>The phenomenon is classified (<i>An umbrella is a simple machine</i>). Its parts are represented by noun groups such as <i>the handle</i>, <i>the waterproof nylon cover</i>, <i>the struts</i>, <i>the button</i> etc</p> <p>The functions are identified via such statements as: <i>It has a handle to hold the umbrella up and the waterproof nylon cover helps you not get wet.</i></p> <p>Causal relations are used to explain how the parts work together as a simple system; eg. <i>When you press the button, the springs shoot up.</i></p>
Tenor – young ‘expert’ to novices	<p>The speaker achieves a general ‘impersonal’ tone by making a sequence of confident statement revolving around the umbrella parts; for example, <i>The struts spread out and open the cover. And the clip holds down the umbrella safely.</i></p> <p>Where human participants are selected, they are generalized ‘you’ as in <i>The waterproof nylon cover helps you not get wet.</i></p>
Mode – oral with visual support	<p>Despite its oral mode, the text shares some features of written texts. It is monologic and has relatively few of the false starts and repetitions common to much spoken language. The labels and captions help structure the text as well as provide important support when required (<i>The stop um um there</i>).</p>

¹ These labels were not part of the learner’s original text. They have been added here to illustrate the generic stages of the text.

Thus the young learner's teacher has drawn on her knowledge of the relationship between text and context to identify and teach those aspects of genre and grammar most relevant to the topic at hand

Language as functional

The SFG model builds on the idea of language use as functional, linked to the purposes for which humans use language in the many social contexts they inhabit; for example, to explain (as we have seen above), to entertain, to instruct, to describe. The grammar is organised into three 'bundles of functions' or 'metafunctions' which relate to the major functions language plays in our lives:

- enabling us to represent our experience of the world (the 'experiential' function);
- enabling us to interact with others in the world (the 'interpersonal' function); and
- enabling us to create coherent and cohesive texts (the 'textual' function).

These metafunctions occur simultaneously in every sentence, providing different layers of meaning. They are linked to the social context through the notion of register; field is said to be realized in the experiential metafunction; tenor in the interpersonal and mode in the textual metafunction. Depending on the field being developed, we make choices from those grammatical resources that have evolved to represent experience. We might, for example, recognize how language represents the 'doings' and 'happenings' in our lives through various types of Processes² in which different kinds of Participants engage, surrounded by Circumstances relating to time, manner, cause, place, and so on. Depending on the tenor of the interaction, choices are made from those grammatical resources that have evolved to establish and maintain interpersonal relationships. These would include the grammar needed to ask questions, give commands and make statements (as above in the umbrella text); to indicate the degree to which we are committed to a proposition; to express opinions and feelings; to engage with other 'voices' and perspectives; and so on. And depending on the mode or medium being employed, choices will be made from those resources that have evolved to regulate the flow of information through a text – from the free-flowing grammar of casual, spoken language to more 'planned' spoken language such as the umbrella

text through to the compact, dense grammar of highly written texts.

As noted above, other modern grammars touch to varying degrees on similar issues of function and meaning, often influenced by Halliday and linguistics. The SFG model, however, provides a comprehensive framework within which all these features are brought together into a coherent whole. The figure below summarises the relationships between genre, register and metafunction.

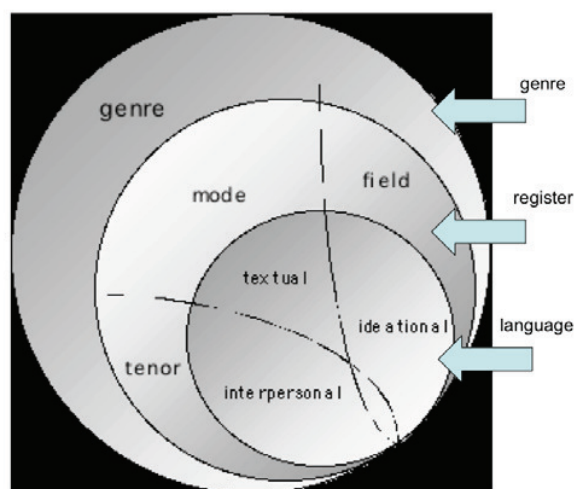


Figure 3 Genre, register and language adapted from Martin 1997: 8)

Relevance to contemporary classrooms and students' lives

For many teachers and students, a functional approach has made grammar 'come alive'. Whereas traditional approaches conceive of grammar as a set of structures which can be assessed as correct or incorrect, Halliday sees language as a resource, a meaning-making system through which we interactively shape and interpret our world and ourselves.

Because it is multidimensional, there are several 'entry points':

- Coming in at the level of the cultural context, students can see how language varies across the different discourse communities in which they participate. They can observe the ways in which different cultures use language to represent experience and to interact with others. They can critically analyse how values and beliefs influence language choices.
- Coming in through genre, students can understand how texts are organized according to the social purpose/s they are

² Capital letters are typically used to denote functional terms.

trying to achieve and how grammatical patterns contribute to the meaning of the text.

- Coming in through register, students can see the relationship between various factors in the context and how these impact on the choices we make from the language system. For example, students may investigate the differences between texts representing the same topic but written for different audiences; in other words, the texts in which the field and mode are constant but tenor varies.
- Coming in through the metafunctions, students can learn how language is used to construct the meanings of the various curriculum areas – the worlds of literature, science, mathematics, geography, and so on; how language shapes identities and relationships; and how spoken texts differ from written texts – and from multimodal texts.
- Coming in through notions of mode, SFG can be usefully applied to working with students to construct and interpret spoken, visual and digital texts by asking questions of purpose, audience, genre and register.
- Coming in through the grammar, students can see how clauses and sentences are structured in various ways – ultimately relating these grammatical items back to the meanings being made.

From traditional to functional grammar

Although functional grammar might appear to offer students valuable tools to support language development in the contemporary classroom, there is still resistance to its adoption, with teachers, textbook publishers, and policy-makers tending to remain with traditional grammar. To a certain extent, this is understandable. Traditional grammar has endured over the centuries and it provides a shared point of reference in the profession. SFG, on the other hand, is a relative newcomer, with a history of only some forty years. While traditional grammar is familiar, SFG requires a different way of thinking about language.

It is not a matter, however, of abandoning traditional grammar but of building on it. Functional grammar, for example, employs standard terms such as article, adjective, noun, and prepositional phrase to refer to grammatical

classes. Like most other modern grammars, however, it would combine these into a noun group (or phrase):

<i>the</i>	<i>black</i>	<i>umbrella</i>	<i>with the tortoiseshell handle</i>
article	adjective	noun	prepositional phrase
noun group			

This in itself is a significant move in teaching and learning, allowing students to think in terms of ‘meaningful chunks’. Most grammars would take a further step, beyond simply naming these categories, and would consider the **function** of the grammatical class. Traditional grammar conceives of function in such terms as the ‘subject’ of the verb. Functional grammar also uses such terms, but goes further – pointing out that the category of ‘noun group’, for example, can have a number of different functions. It can have an experiential function, representing the participants in events and happenings (the people, places and things of our experience). It can have an interpersonal function, where it can participate in creating patterns of interaction. And it can have a textual function, where it might signal how a topic is being developed or how a text is organized. It is such functions that make SFG appealing to teachers and students, as they can see a more immediate relevance to their everyday lives: how they use language to talk about what’s going on; how they use language to interact with others; and how they shape the organization of texts.

If there is to be a move building on traditional grammar but with a more functional orientation, there are a number of issues to be addressed. The following section looks at the implications of such a move for curriculum development, teachers, learners and policy-makers.

Curriculum, pedagogy and assessment

In the Australian context, SFG has informed the teaching of students from linguistically diverse backgrounds in schools and adult settings for a number of years (for examples see Martin 1999; Rose, Luis-Chivizhe, McKnight and Smith 2003). The approach has been adopted for the new national English curriculum for students in years 1 to 10 (ACARA 2010). There are several important reasons for this uptake; reasons related to the points we have already made but which have

particular implications for curriculum, pedagogy and assessment.

Firstly, the model enables teachers to integrate language and content in their planning because functional grammar (as we have seen above) provides a basis for predicting which linguistic features are likely to arise within a particular context. In this way, teachers are able to be proactive rather than reactive in their language teaching. They can identify the purposes and functions for which students must use language and then map these onto specific genre/s, text patterns and register variables. They are also better placed to identify the demands of learning tasks.

In the example above, the teacher drew on her knowledge of genre, register and grammar to plan a literacy program embedded in the curriculum content. Recognising that the Science curriculum is host to explanation genres which range from simple to complex she was able to ‘backward map’ to a text form which was within the grasp of her class of eight year-olds yet would prepare them for more challenging texts they would encounter later in schooling. The Simple Machines field enabled students to closely observe and manipulate familiar everyday items such as umbrellas, eggbeaters, staplers and hand drills so that they could readily become ‘experts’ in how they worked. Focusing on spoken text enabled the learners to encounter the structure of the genre and other aspects of the text without the additional burden of producing them in written form at this early stage of development. The teacher introduced the learners to the multimodal conventions of the discipline; teaching them how to read and construct diagrams as well as about their complementary role with verbal text. The

poster also served to support their spoken explanations. Her grammar teaching for this teaching episode revolved around assisting students to build factual description via the noun group (*the waterproof nylon cover*) and to express causal relations (*When you press the button, the springs shoot up.*) Awareness of these language features will assist the students to come to terms with more extended written texts that describe and explain a range of phenomena.

Of course, as English language learners enter different points of the educational system, they encounter a greater variety of texts in which more genres and registers are at play. For example, the writing of an essay in the field of commerce by an undergraduate or senior secondary school student on the effects of the global economy on developing countries requires a more complex explanation than that evident in the umbrella text. While the genre remains constant, the register is significantly different and hence a good many more linguistic features are at risk. The field is more specialized and abstract rather than commonsense and observable; multiple causal relationships (rather than the simple linear sequence of the umbrella mechanism) must be managed. In terms of tenor, the undergraduate student must position herself or himself in the field as a scholar-in-training; achieving the right balance of assuredness, ‘objectivity’, and knowledge. The shift in mode from spoken to written language will require control of the organizational features of English. This instance of the genre is a highly symbolic artefact that must mean ‘on its own’. The following table presents a range of grammatical features at stake in learning to control such a text. Awareness of these will greatly assist teachers’ planning

Contextual factor	Potential language focus
Purpose Expository genre: causal explanation of a phenomenon	The distinctive functional stages that such a text needs to develop in order to achieve its rhetorical purpose.
Field The academic discipline of commerce (including cause and effect implication sequences)	eg lexicogrammatical resources for building field-specific technicality, the nominalization of experience, the expression of causal relationships
Tenor The construal of self as knowledgeable, critical apprentice interacting with ‘the academy’ (mediated by the lecturer as assessor)	eg the indirect expression of probability; the degree of commitment to a proposition; resources for critical evaluation; citing practices; the choice of speech role pronouns
Mode Written product (through a process of reading, discussion and drafting) perhaps with accompanying diagram/visuals	eg cohesive devices; resources for manipulating the flow of information (eg foregrounding and backgrounding; signalling the development of the argument)

One issue for SFG is its applicability to multisemiotic texts (i.e. texts drawing on semiotic resources beyond language such as image or sound). We acknowledge that there is much work to be done in this respect. However, because of the emphasis on meaning, SFG is applicable to forms of semiosis outside of language. In terms of visual texts, Callow (2003) works with teachers and students by posing questions based around the metafunctions such as:

- What actions, objects and settings are evident? (Experiential)
- How are aspects such as colour, angle, shot distance, and the media employed used to construct an interpersonal relationship between the viewer and the 'viewed'? (Interpersonal)
- What layout choices are made and what is the effect of those choices? (Textual)

Of course, a visual grammar alone won't be sufficient for all the possibilities and challenges offered by digital technology but the success of the above suggests that SFG has much to offer teachers for classroom use (for example, see Unsworth 2001). Constructs of genre and register may also be applied to the construction of new text forms and indeed offer a way into comprehending these through such investigations as 'What is the purpose of the text?' and 'Who is the intended reader?' While notions of purpose and audience have been inherent in English curricula for many years, SFG provides explicit and specific tools for 'pinning down' what these look like in language and in other semiotic systems.

Importantly for English language learners, SFG assists teachers in supporting learners' development of academic language. Traditionally grammars have been based on written language but because of its emphasis on language in use SFG is equally applicable to spoken language. The differences between the two are accounted for by means of the mode continuum which conceptualizes language as points along a continuum from that spoken in a face-to-face encounter such as an experiment in a science laboratory to that produced as highly abstract written form such as a scientific report for a prestigious academic journal (Figure 4). In this way the distinction between the context bound, dynamic, oral texts produced at one end of the continuum can be contrasted to those decontextualised, dense, written academic texts at the other. It is the latter that English language students must learn in order to be successful in educational settings. However success in doing so

is reliant on the use of spoken language in a range of situations resonating with different points along the mode continuum. Positing the relationship between spoken and written language in this way provides teachers with another tool for designed pedagogy. Gibbons (2009) demonstrates the importance of the mode continuum in planning classroom environments which assist English language learners develop facility with abstract texts and meanings. In addition, knowledge of the mode continuum assists teachers make judgements about learners' use of spoken language on the basis of appropriacy or effectiveness in a given situation rather than on the basis of rules of 'correctness'.

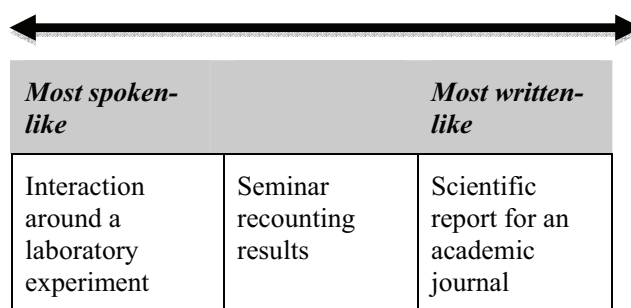


Figure 4

As well as informing curriculum content (the 'what' to teach), the SFG model has also informed pedagogic design (the 'how'). The close relationship between learning and language development is a key tenet of the model, bringing together Vygotskian traditions of learning through interaction and studies of language development. The approach is widely used to design literacy pedagogy in schools, community colleges and universities across Australia and elsewhere. The central notion of 'guidance through interaction in the context of shared experience' (Martin 1999: 126) is captured in a curriculum cycle that uses genre and the curriculum context as starting points for content-based language teaching. Teachers introduce the focus genre and explicitly teach students about its social context, its typical structure and salient aspects of the grammar. Drawing on that shared metalanguage, teacher and students are then able to jointly construct an instance of the genre. In this way students are supported toward independent success. While the model is applied flexibly and recursively – rather than in a lock-step fashion – it is commonly represented in the following diagram.

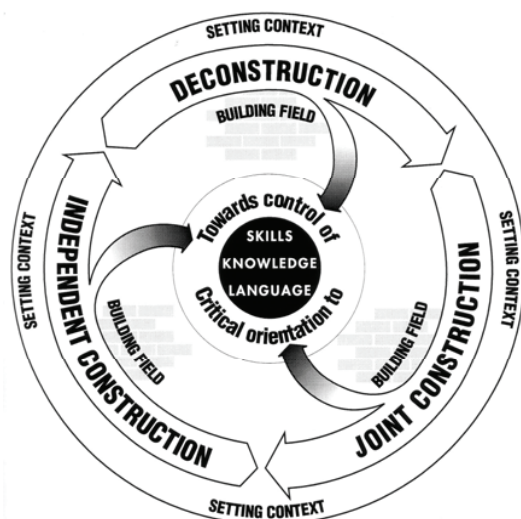


Figure 5: The curriculum cycle (Rothery and Stenglin 1995)

SFG provides a useful tool kit for assessing students' texts in all teaching contexts. It helps make what is valued visible to teachers and students alike and enables discussion to move beyond the surface features of spelling and punctuation and beyond sentence level syntax. Because teachers make aspects of the text explicit to students, the criteria for success can be shared. This shared understanding involves knowledge about genre (including its staging) and register. In the adult TESOL context, SFG has provided the basis for a discourse-orientated approach to assessment (see Feez 1998). For schools-based literacy programs, SFG has proved particularly useful in the National Assessment and Program in Literacy and Numeracy (NAPLAN). This national assessment incorporates a writing task undertaken by all students in years 3 (approx 8 years of age), 5, 7 and 9 (approx 15 years of age). Schools have recently been advised that students will be asked to compose an argument text that will be assessed according to such criteria as audience, text structure, ideas, persuasive devices, vocabulary, cohesion, paragraphing, and sentence structure – features informed by a functional view of language. Similarly although more focused on assessment for teacher professional learning, Rose (2010) uses SFG informed assessment criteria to assist teachers develop literacy programs in response to students' needs. These include context (e.g. purpose, staging, register), discourse and grammar (e.g. phases³, vocabulary, conjunction, reference) and graphic features (paragraphing, spelling, punctuation).

³ Phases are steps a text goes through within the generic stages. Phases can be a paragraph or a few sentences long. For a fuller discussion see Martin and Rose 2008.

One important issue arising from all of this curriculum activity is that of the need for quality materials for use in classrooms and in teacher education settings. To date teachers have tended to make their own or adapt existing resources. With the exception of initiatives by specific sectors within Australia and elsewhere (such as the Adult Migrant Educational Program (NSW)) and discrete projects undertaken by education departments, there are few commercial products widely available. Many resources for teaching grammar tend to favour traditional approaches and are EFL-orientated – and hence not appropriate for students who must acquire subject-specific, curriculum-responsive English. The picture is a little brighter with respect to teacher education materials. There are several widely used resources namely text books (Coffin, Donohue and North 2009; Butt et al. 2000; Feez 1998; Droga and Humphrey 2002 and 2003; Derewianka 1990 and 1998; Gibbons 2009) and DVDs (Love et al. 2003 and 2008). However, given a changing curriculum and policy context and the evolution of theory and teachers' knowledge about language, there is an urgent need for more materials for use in a range of settings and with newer communications technologies such as interactive whiteboards.

Stakeholders

Teachers

Few would disagree that SFG is a challenging theory to come to grips with. As with most other reference grammars, the model is relatively complex. However it is not presented for classroom use in its full complexity. Over the years it has been interpreted in ways that make it more accessible for teachers and students. Our experience with teachers has been that, after an initial period of feeling somewhat overwhelmed, they start to see how the model works and its potential applications. Rather than trying to take on everything at once, they experiment with one area that they find manageable and useful. For those who are familiar with traditional grammar, functional grammar takes them beyond the study of structure to real-world applications in supporting students' language and literacy development; for those who are not familiar with traditional grammar, SFG provides a more relevant 'way in' through genre and function, eventually making contact with the traditional grammatical categories that realize those functions.

Professional development programs need to be substantial and ongoing and need to address pedagogy as well as knowledge. Teachers can't always appreciate the potential of functional

grammar until they have come to terms with key principles; this is difficult to achieve in short seminars. A number of successful programs for school-based teachers have evolved to meet this need, some of which have been delivered in the UK and elsewhere as well as Australia; for example, ESL in the Mainstream and Language and Literacy (both referred to in an article by Dare in this volume), Reading to Learn⁴, and Accelerated Literacy. The implementation aspect of any professional learning program is also critical; if teachers do not understand the orientation of the model toward whole texts in their contexts of use then the pedagogy is at risk of becoming restricted to teaching normative structures and grammatical labels in isolation from meaning. In this respect, vignettes of exemplary classroom practice are important resources for teacher educators and particularly so for pre-service teacher preparation programs where students have fewer resources and experiences upon which to draw (see Harper and Rennie 2009 for discussion of pre-service teachers' preparedness to teach grammar).

English language teachers have played an important role in developing applications of SFG for classroom use. The beginnings of the approach were in multilingual, disadvantaged schools; now SFG is a major component of most TESOL postgraduate programs in Australia. TESOL graduates are key resource figures in schools yet most English language learners find themselves in mainstream classrooms with teachers whose initial preparation often focuses on broader issues of literacy rather than educational linguistics. As a result of the curriculum and assessment changes described above, most mainstream teachers – particularly in the primary school – are comfortable with the notion of genre (or 'text type') and familiar with the pedagogic approach. They are considerably less confident about relations between text and context and grammar (Hammond and Macken-Horarik 2001). Our current research confirms these findings and suggests that many subject teachers (particularly in secondary school settings) have no formal study of language and draw upon partially remembered folklore about language and grammar (Jones, Chen, Lewis and Derewianka 2010). Our current research project, like those listed above, involves working with mainstream teachers to develop more comprehensive understandings of the grammar and to assist in designing pedagogic responses to curriculum imperatives and learners' needs.

Learners

While teachers might balk initially at some of the unfamiliar terminology and concepts, students tend to take them in their stride and use them productively. There are a number of case studies of student development and use of a functional metalanguage documented in the research (see for example, Martin 1999; Williams 2005; Jones 2005) and in professional learning materials (for example, Love et al. 2006 and 2008). Williams' work suggests that functional terms, because they coincide with the learners' experiences in the world, are the best point of departure for young language learners. However, more case studies of teachers and learners at work with the grammar are needed. Curriculum and assessment rubrics tend to map what are understood to be the contextual demands at particular points in an individual's experience; we have yet to fully capture a picture of what development in understanding looks like over time. What is urgently needed are accounts of development in metalinguistic awareness; in other words how cumulative knowledge about language is built over time. Of course, this relies on the systematic teaching of the grammar – a difficult achievement when teacher expertise is unevenly distributed. For bilingual and EAL learners such a project has special significance; many enter English speaking contexts at different points and with different linguistic resources.

Policy-makers

Though teachers and students are enjoying the benefits of SFG, policy makers, the media and textbook writers are harder to persuade. Policy makers are wary because of its perceived 'newness' and complexity, requiring evidence to demonstrate that an SFG-informed approach makes a difference, that teachers find it useful, that students are benefitting and that there is sufficient payoff for the expense of upskilling teachers. It has taken decades for SFG to be accepted in Australia; change has been incremental, brought about by strategic and persistent work with teachers and students, colleagues in professional associations, employers and individuals within systems. The uptake has been faster in adult settings – perhaps because of the less hierarchical nature of these organizations; perhaps because a critical mass of teacher-experts emerged earlier than in school settings. Nevertheless, the fruition of the efforts in school settings is the current widespread support for a national English curriculum underpinned by functional grammar. The draft curriculum notes:

Grammar refers both to the language we use and the description of language as a

⁴ Reading to Learn also prepares teachers for working with the model in adult learning settings.

system. In describing language attention is paid to both the structure (syntax) and meaning (semantics) at the level of the word, the sentence and the text. The English curriculum uses standard grammatical terminology within a contextual framework; that is, how language functions to enable us to interact with others, to express and develop ideas, and to create and comprehend texts

(ACARA 2010: 5)

The metafunctional orientation is obvious; what may be less obvious is how the relation between traditional and functional terminology is to be managed. For example, in year 2 (approx age 7) it is anticipated that students will develop understandings about the functions of constituents in sentence level grammar by learning that ‘Language can be used to represent ‘What’s happening?’ (action verbs), ‘who or what is doing or receiving the action?’ (nouns/noun phrases); ‘details about the situation?’ (adverbials)’. (ACARA 2010: 21)

In this way function and class are firmly linked. Some dilution is necessary as SFG still requires shaping for pedagogic applications. Nevertheless, there are some concepts which other grammars simply do not provide. These include thematic organization of text and grammatical metaphor. With respect to the latter, in the draft English curriculum year 9 students (approx age 15) learn that ‘information can be condensed by collapsing a clause into a noun group and that this is termed ‘nominalisation’. (ACARA 2010: 73) Further explanation is provided for teachers as:

- Knowing that nominalisation is a key resource in the development of mature written texts.
- Knowing how more everyday, oral ways of expressing ideas (e.g. ‘We produced the play in the open air’) can be expressed using a nominalised form (e.g. ‘The open-air production of the play ...’).

This is one area of the grammar in which the pay-off for EAL students is substantial because coming to grips with nominalisation is essential for gaining control over the decontextualised language associated with texts from the most-written-like end of the mode continuum – and hence academic literacy (see Dare article p18 this volume for further explanation).

In conclusion

As knowledge and experience evolve, we are mindful of how much teachers will be able to take on board and how media and public commentators will respond. The Australian media tends to see traditional grammar as a hallmark of civilization and any change as controversial. It wades in regularly to lament the passing of traditional grammar from contemporary English teaching. It applauded the new curriculum as ‘back to basics’, linking grammar with spelling, punctuation and accuracy rather than with a means for supporting students’ literacy learning (Aly 2010). There remains no shortage of textbooks which address these ‘basics’. Although publishers have gradually taken on genre or text types and aspects of SFG such as cohesion, they have not seen SFG as a profitable commercial enterprise. However, we are hopeful that this too will change as the critical mass of people with expertise in the area here continues to expand and we watch the work of colleagues around the world (see for example Schleppegrell p26 also this volume).

In summary, we have endeavoured to show how systemic functional grammar can offer much to English language teachers. The account of English discourse and grammar offered by Halliday has provided us – and our students in turn – with a rich resource for explicit work with language in classrooms in many settings. With respect to the vexed question of which grammar to teach, we suggest that it is not a simple either/or answer. Rather we have attempted to show how aspects of traditional grammar remain relevant but that SFG offers much more to teachers and students in terms of understanding what and how meanings are made in the range of contexts in which students need to use English. In describing the benefits in terms of curriculum, pedagogy and assessment; we have shown how educational applications of SFG have travelled far from their genesis in Halliday’s early work teaching Chinese to native English speakers (Webster 2005). However, we have also acknowledged that there are important unresolved issues in the evolution of SFG in the Australian contexts – some of these will be shared with teachers and teacher educators in the UK and elsewhere. We anticipate these will form part of the ongoing dialogue among linguists and teachers as the theory and its applications continue to expand.

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Learning about language: the role of metalanguage

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Lexis Education

Is meta-language in fact scaffolding that sticks around?

(Martin 2006: 115)

The question of what should be known about language is one that has intrigued educators over the centuries. We can trace this interest back to ancient Greek where the study of grammar was a key feature of the learning how to use language to argue effectively. In more recent times in the United Kingdom, beginning with the Bullock Report into the Teaching of English in 1974 to the Language in the National Curriculum in 1989 to the more recent Primary Literacy Strategy: Grammar for Writing produced in 2000, it has been argued that language plays a central role in teaching and learning. Within the Australian context, it is very heartening to see that one of the three major strands in the newly minted National Australian English Curriculum is 'Language'. There it is argued that "a fundamental responsibility of the English curriculum is to develop students' understanding about how the English language works"

(see www.australiancurriculum.edu.au).

While arguments are made for the central role of language in teaching and learning, we also have at the same time a kind of language dilemma raised by Ruqaiya Hasan in "Ways of saying: ways of meaning":

The ubiquity of language is such that we go about the business of living, making use of it and taking it for granted in much the same way we take it for granted that eyes are for seeing and ears are for listening

(Hasan 1996: 14)

As Hasan suggests it is not so easy to see the marvellous work that language does because of its ubiquity, because we all know it, because we all use it, because it is so naturalised. If we are to see beyond just saying how important language is, we have to have some means for talking about it, for 'de-naturalising' it in order to gain a deeper understanding of its powerful role in teaching and learning. At the heart of the matter, if we want our students confidently reading and writing across the range of genres and registers required by schooling,

then we need to understand *how* language works to make meaning.

In 20 years of working as a teacher educator who is deeply interested in the role of language in teaching and learning, I have become increasingly convinced that the Systemic Functional Grammar (SFG) model is the most powerful and effective tool for understanding how language works to make meaning. If teachers and students alike are to understand how language works to make meaning, then it follows that we need to develop a meta-language, a language for talking about language. For me, as a mentor in teacher research projects, as a co-writer of various versions of the Language and Literacy (LL) course and the Teaching ESL Students in Mainstream Classrooms (TESMC) course⁵ which are underpinned by a functional model of language, the critical question is not *whether* we should develop a shared metalanguage between teachers and students but a question of how much metalanguage. In my view, meta-language, as Martin suggests in the opening quote, *is* scaffolding that sticks around. And the richer the metalanguage, the stronger and more enduring the scaffolding we provide for our students.

In this article, I will show some of the ways professional development courses such as LL and TESMC have taken up this question of developing meta-linguistic understandings in educators, who in turn develop the same disposition in their students. The aspects discussed are ones that have proved particularly powerful and that have resonated with teachers and students. I should point out that although it is beyond this relatively short article to provide a fulsome description of the model or do justice to the myriad ways it can shape what we do in the classroom I hope it gives some insight into what might be possible.

Drawing on a functional model—in brief

In both the LL and TESMC courses language is seen as the meaning making system 'par excellence' (Painter 1996) and both, in varying degree, attempt to make explicit the workings of the language system. In the discussion that follows I will outline some of the ways the courses draw on three major components of the SFG model: genre register and language. Of course, it is impossible to do justice to this in such a short space but it will give readers some idea of how the model has shaped teaching about language in a range of

⁵ These courses are professional development courses which have been designed to develop EAL and mainstream teachers' knowledge about language as part of an explicit pedagogy. They have been delivered in Australia, Europe including the UK, Hong Kong and many other parts of Asia.

educational contexts. To make this discussion a little easier I have included a diagrammatic version of this rich and complex model (see Figure 1 below).

‘unclutter’ the curriculum by giving focus and direction to their teaching. It further enables teachers to focus on the salient language features of the focus genre (see Polias p42, this volume).

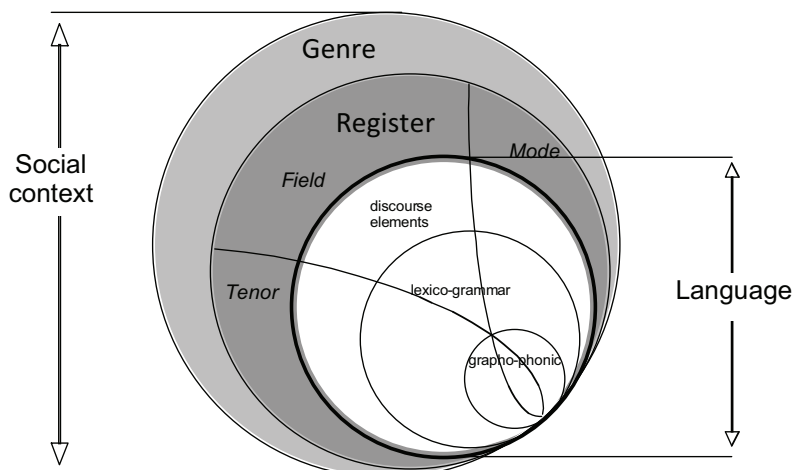


Figure 1 The SFG model: genre register and language

In both courses, we begin by exploring the notion of genre, a term introduced by Martin who argues that within each cultural context (represented in Figure 1 by the outermost layer) there are patterns in the way we make meaning. He further defines genre as ‘staged, goal oriented purposeful social activity in which speakers engage as members of our culture’ (1986: 33). Applied to educational contexts, this has been extremely helpful in identifying the critical educational genres of any given curriculum and the patterned ways these texts work.

The fact that each genre has a particular purpose and that it unfolds in stages has been a very helpful starting point for teaching students about text. As students do schooling, they encounter a range of genres from simple recounts to information reports, explanations and arguments, each with their own purpose and schematic structure. In being explicit about the purpose, we can apprentice our students into the appropriate use of a given genre. In being explicit about how they unfold in their typical stages and phases (see Polias this volume), we are providing a framework for them to order their meanings in a culturally accepted way.

In both the TESMC and the LL courses, we emphasise the importance of focusing on the structure and language features of a single genre in any given teaching learning cycle. By identifying such a ‘focus genre’, we can provide rich scaffolding that will ensure students gain a good measure of control and much deeper understanding of that particular genre. Having a focus genre has also been instrumental in helping teachers

Once teachers have an understanding of what genres are to be taught and their associated structures and language features, it becomes easier to map out the progression of genre throughout schooling. Mapping out the genres in this way enables teachers to see the developmental pathway for students from the early years of schooling, where students are engaging a relatively narrow range of genres, to the upper levels of schooling where students will meet the full array of genres across the subject disciplines.

Moving to register

Moving down a level now (the next strata in Figure 1) to a more immediate context in which a text unfolds, we consider the register. Here, we consider three important aspects of that context: the field (the what of the text, the angle on a particular topic), the tenor (the nature of the interpersonal relationships of the interactants and their roles they take up) and the mode (which is concerned with how written or spoken the text is and also the means of communication).

We spend time in both courses developing understandings of these three register variables. Importantly, we discuss them in terms of the following continua (see Figure 2). Teachers have found this extremely helpful for both themselves and understanding what they expect their students to do and for the students themselves to understand what is expected of them.

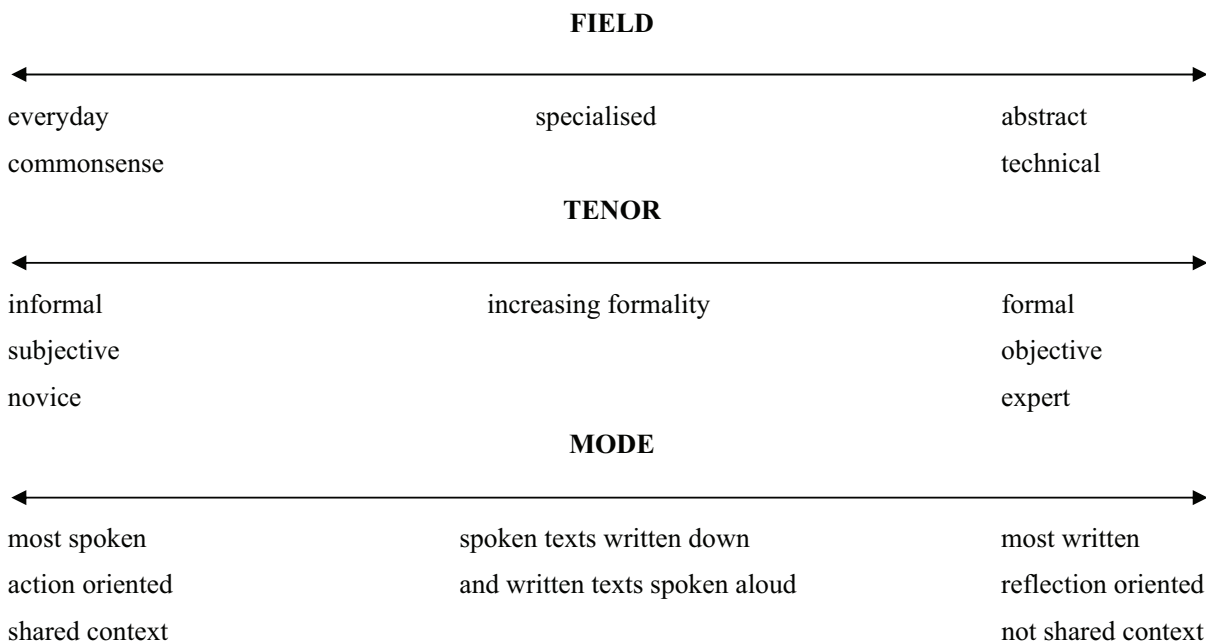


Figure 2 Register Continua

In terms of field, we see shifts from the more everyday, concrete fields, where students can see and touch things and experience their world more directly, to those fields such as History, subject English and Science where abstraction and technicality abound. In terms of tenor, students move from interacting with those they know in more immediate contexts, where they take on a narrow range of roles to contexts that demand more distant, impersonal relationships with unknown others, where academic ‘objectivity’ and disciplinary expertise are highly valued. With mode, we see a shift from contexts where students use language in the here and now in face to face dialogues and where language often accompanies action to those contexts where language reconstructs the action, where reflection takes place, where we have time to plan, organise and edit our written texts.

By exploring each variable in turn, teachers and students are able to get a much more delicate and nuanced insight into the nature of the ‘contextual pressure’ on the texts students are expected to read and write. Teasing out the field, tenor and mode will enable us to see much more clearly the kinds of language choices that will be effective in any given context. In our courses, we continually emphasise this interconnectedness of language and the social context. But this is only part of the picture. The other part lies in understanding the language system itself.

Getting down in to the language system

We now take a further step down the model to the language level (see Figure 1). In understanding the language system itself and its relationship to the context we need to be clear about what we mean by text. A text is ‘any instance of language, in any medium, that makes sense to someone who knows language’ (Halliday and Matthiessen 2004: 3). Any given text then is a set of choices from the language system, with the language system representing the set of potential choices. In a functional model these choices are intimately connected to the social context in which the text unfolds. If we are then to understand this nexus between the text and the context, we need to understand the resources available in the language system.

Both the TESMC and LL courses build understandings about genre, register and the language system. However, the courses differ in the depth to which they explore the language system. In this next section, I will focus on two major resources that have been taken up (in differing degree) by both courses: the nominal group and nominalisation. These two resources are ones that have been taken up most readily and to great effect by teachers and students.

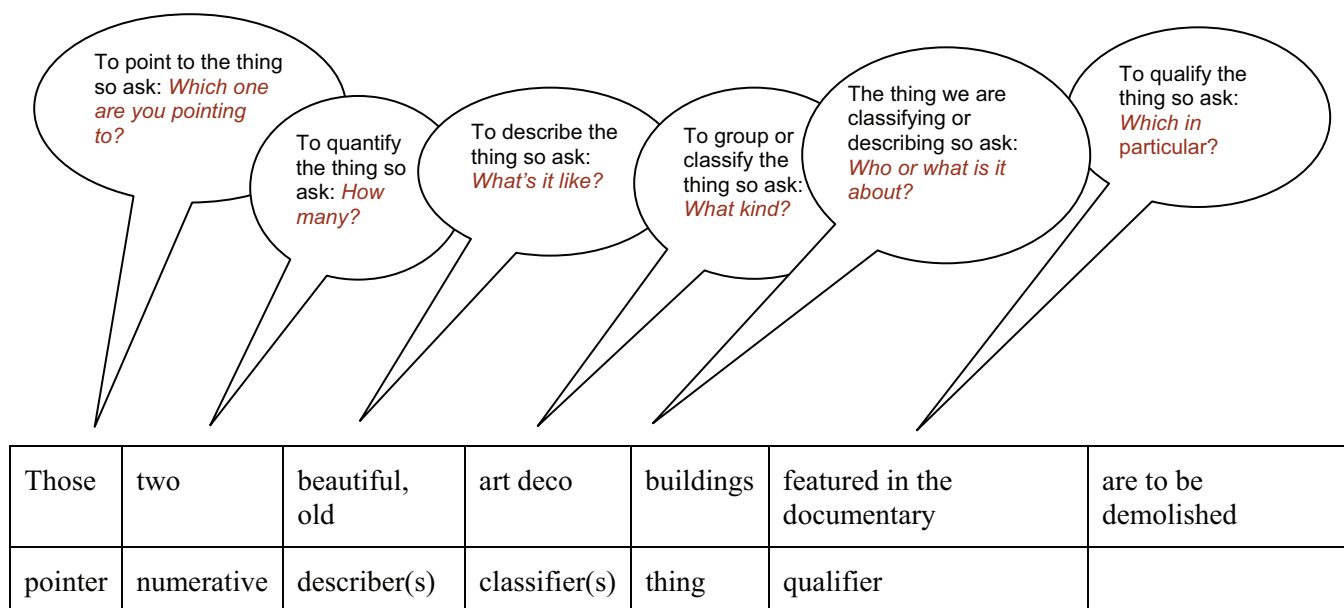


Figure 3 Building a nominal group

Introducing the nominal group

When we considered the register continuum above we saw how we can use it as a way of articulating and making explicit the shifts in register encountered by students as they move through schooling. One of the major barriers to student success in schooling is moving from spoken to written mode. How do they make their texts sound more written like? Why does it sound like they are speaking out the text, even though it is written down. One of the language resources deeply implicated in this shift is the nominal group.

A nominal group is a group of words built up around a key noun as illustrated below with the key noun 'buildings':

Those two, beautiful old art deco buildings
featured in the documentary are to be
 demolished.

We can see that this nominal group is quite long and contains a lot of information built up in a patterned way around this key noun. Building up information before and after the key noun within the same nominal group is a pattern typically seen in written language. When we speak, we don't talk like this and in fact we would see that our talk is characterised by shorter nominal groups. Understanding the nominal group and how we can pack in information is one of the keys to showing

students how to move from more spoken to more written modes.

One of the first steps teachers have found useful in understanding the nominal group is to use a set of functional questions to identify the functional components of the nominal group. Working with Figure 3 above we can see that the one essential element of a nominal group is the 'thing'. While we can have nominal groups consisting of just the 'thing', more typically we find one or more of the other elements which we can use to classify, describe, point to and elaborate the 'thing'.

As illustrated in Figure 3, a set of questions can be used both to identify these various functions and to create the associated functional labels. Using these functional labels is a crucial step in building every students' metalanguage and this can and should start at an early age. We know, for instance, that in Australia at least some of the functional labels used here have been taken up even by very young students in the first year of schooling.

Teachers across all levels of schooling can use these questions as part of a rich array of activities aimed at building understanding of how the nominal group works. Pictures can be used to identify what 'thing' will be classified, described, numerated and pointed to and elaborated on. Words can be placed on cards which can then be manipulated and the resulting nominal groups discussed and explored. Why, for instance, do we place the classifiers next to the thing and before

the describers? Why do we tend to say ‘beautiful, old’ rather than ‘old, beautiful’? Which part of the nominal group is the main verb of the sentence agreeing with?

Once students have some sense of the structure of the nominal group, they can move to identifying patterns in the nominal groups across different genres. They can contrast the patterns they will see in Science texts (much greater use of classifiers) with those or more literary texts (much greater use of describers). They can practice building up nominal groups, sometimes overbuilding to the point of unwieldiness. They can look at how writers play with the nominal group. They can practice how to repackage information contained in two or more clauses into a single clause by expanding the nominal group as part of a deliberate focus on shifting their writing to a more written mode. Teachers and students together can unpack the long nominal groups of highly written texts to more spoken mode where students are more likely to understand the meanings being made.

Turning it into a noun: nominalisation

An equally rich and fertile area for moving students from more spoken to more written mode is developing in students a capacity to understand and use nominalisation. At its simplest, nominalisation is a process whereby meanings that are realised through verbs and adjectives are realised as nouns. We introduce these notions in our courses by looking at simple transformations such as the ones below.

More spoken	More written
She explained to her father why she failed but he didn’t accept it	Her explanation for her failure was not accepted by her father.
He was confused and everyone knew it.	His confusion was apparent to everybody.

It is apparent that the versions on the right are somehow more written like. One of the reasons for this is the shift away from a reliance on verbs and adjectives in the originals to a reliance on the nouns ‘explanation’, ‘failure’ and ‘confusion’. You may also notice a change in the number of clauses with the examples on the right consisting of only one

clause in contrast to those on the left. Both these shifts are evident whenever we move from more spoken to more written modes.

Let’s see how one teacher, Susan Marshall¹, supported her English Literature students (at senior secondary school level) to move from a more spoken mode to a more written one with a series of interventions including a focus on nominalisation and the nominal group.

Below is a first draft of an analytical response from one of her students (aged 17 and from a non English speaking background) to the poem *Pieta* by James McAuley (Please note that I have added bold font to some words, the reason for which will become clear later).

Initial response

OK well what have we got to discuss today? It’s pretty obvious that the guy in this poem can’t get over the fact that his baby who was premature died at one day old. Lets face it it would be awful for anyone. You really feel for this new dad because he tries to work out why his son died but can’t find any **answers**. Lots of people die for no **reason** and this can be pretty sad. He asks lots of **questions** to the mother and God and sort of blames both of them in a way. When he says ‘with one hand touched you’ and ‘**wounds** made with the cross’. So James speaks a lot about losing someone special and how it really gets to people and makes them stay grieving.

If we do a quick analysis of this text in terms of register, we can see that clearly this student is at the wrong end of the register continuum. In terms of the field, she has made language choices that reflect a more colloquial, commonsense realisation of the field and a misunderstanding of the appropriate tenor (‘OK well what have we got to discuss today’, ‘the guy in this poem’, ‘it would be awful’, ‘James’). Crucially she is operating in spoken mode and you can almost hear her ‘speaking’ this text.

While the brief register analysis above shows how much work needs to be done in a number of areas, it was clear to Susan that her student was having enormous difficulty engaging with and writing

¹ A full account of Susan’s work with this student can be found in Marshall 2006

about abstract ideas and issues required by such a response. This is reflected in the use of nominalisation in this text (see in bold above). Those that we do see are either very common, everyday nominalisations that even young children would understand ('answers', 'reason', 'questions') or taken from the original text ('wounds').

After some serious and systematic work around nominalisation and the nominal group among other linguistic work, Susan's student built up her ability to operate in a more academic, written register required by this particular educational context and this capacity is clearly evident in the first few lines of her final submission, reproduced below.

Final submission

Loss is a universal human **experience**. James McAuley's *Pieta* explores the devastating **effect** of a premature baby's **death** on a father. The **inability** of the father to accept this **death** and his **need** to assign **blame** are captured in his constant **questioning** of both the child's mother, who at least was able 'with one hand' to 'touch' the baby and God, who has inflicted lasting '**wounds** made with the Cross'. ...

There is a lot to say about this text but two things stand out. The first is that we now see a much greater degree of nominalisation prevalent in this text (indicated in bold), reflecting the degree of abstraction we would expect to see in such a response. We also see clear evidence of the student taking up the potential of the nominal group. See for example 'a universal human experience', James McAuley's *Pieta*, 'the devastating effect of a premature bay's death on a father', 'the inability of the father to accept this death and his need to assign blame', all of which reflect a more written mode.

In summary, we can see that there is an enormous difference between this text and the original, which would have barely achieved even a pass mark. The latter text contributed to Susan's student achieving a high pass in her English Studies exam and a place at university.

What else can be learnt about the language system?

While both the TESMC and LL courses deal with all the above, the LL course goes much more deeply into the language system. In the very early modules

of that course participants are introduced to a fundamental area of the grammar, referred to as transitivity: the *processes*, *participants* and *circumstances* that realise the field of any given text. While these are technical terms they capture nicely what experience is being represented in each clause.: the process that is going on (the doing, thinking, saying or being), who or what is participating in that process (either the person(s) or thing(s) involved in some way) and the circumstances (the when, where, how and why) around that process.

Transitivity is seen as providing a springboard for developing further understandings about the language system. Once students have a basic understanding of these groupings, they are much better placed to move onto other areas of the language system. Areas such as theme (see Polias this volume) and how that can be applied to longer stretches of text through hyper-theme and macro-theme, the system of cohesion and the interpersonal resources such as modality and appraisal are all covered.

The LL course covers a lot of linguistic territory much of it new to teachers. However, it is obvious from the overwhelmingly positive responses we have had to the course that there is a deep thirst out there for such knowledge about language. While in the early days, there was some diffidence about what could and should be known about language, particularly about the take up of the meta-language, over the years there has been a huge shift in both interest and willingness to know about these things and to develop those same understandings in students. It is not unusual to see comments such as the following:

An in depth, thorough, relevant, cross curricular, comprehensive, analytical, star-burstingly good study of grammar, language and learning.

(Language and Literacy Course Lambeth
2004)

It was the most difficult, most rewarding learning experience I have had.

(Language and Literacy Course Brisbane,
2009)

At the risk of sounding contrived, I would like to say that this course has been life changing for me in terms of my pedagogy and curriculum leadership. Thank you!

(Language and Literacy Course Brisbane, 2010)

Where an explicit approach to teaching students about language is used, we have also seen enormous benefits to students, particularly with improvements in their writing. One of the outstanding examples comes from a class of seven year olds who were taught about transitivity, theme, active and passive voice and elaborating 'which' clauses² as part of a focus on sequential explanations on how milk gets from the cow to us. A fuller account of the actual teaching activities is available elsewhere (Polias and Dare, 2006) but here is a student example of before and after a literacy intervention

Before

The farmer milks the cow then the farmer bring the milk to the supermute then the people biy them.

After:

Cows which are to have had a calf befor been milked by automatic suction cups. After the cow has been milk, the milk is stored and pumped into silos.

Now the milk is delivered to the factory to be homogenised and pasteurised to kill chse and bucteryer. The milk is made into skim milk and flavoured milk. Next the truck is washed before it delivers the milk to the deli and the supermarket. Last the supermarket is selling the milk to the people.

Steven

We can see a quite dramatic improvement here with Steven's texts, an improvement that was achieved over just ten weeks of schooling. This improvement was seen across the whole classroom and it is a pattern which I have seen replicated over and over again where teaching about language is done sensitively and systematically within the context of a rich teaching and learning cycle.

² For example, we see two elaborating which clauses (in bold) used by one student in the following sentence 'The raw milk is now pasteurised **which is heating the milk up** and homogenized **which is spreeding the cream.**' Note also the use of the passive voice in this short example.

In summary

As Hasan's earlier comment hinted at, de-naturalising the thing that is most naturalised to us is a challenging task. Any serious attempt at getting teachers and students to understand how language works to make meaning needs to be accompanied by a deep and sustained exploration of the language system itself. As has been argued, the SFG model of language provides us with a rich resource to do that.

We have seen above some of the possible ways we can draw on this model to understand how texts work. We have also seen the critical role a metalanguage plays in this exploration, providing as it does the means for talking about and reflecting on the language choices we make in any given text. While inevitably this involves a certain degree of technicality, in my experience, teachers are continually surprised and elated at the ability and willingness of their students to take on that technicality as they would in any other area of learning.

In my view, we are only beginning to understand and recognise the value of having a substantial, coherent and shared metalanguage between teachers and students. Overwhelmingly, my experience over the last twenty years has been that providing both teachers and their students in turn with a rich metalanguage is the most powerful way we have of building our students' capacities to make meanings across an ever expanding range of contexts.

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Supporting a “reading to write” pedagogy with functional grammar

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Your recount doesn't have an evaluation. You need to have a *being* or *sensing* process at the end.

(One 8 year old pupil to another)

Teachers in the USA in the primary grades are often familiar with advice about teaching the writing *process*. They know that developing writers need opportunities to brainstorm, draft, get feedback, and revise their writing. But they are less frequently prepared with strategies for supporting pupils *as* they write. This article describes an approach teachers can use to address questions such as *What should I focus on in scaffolding the content and organization of my pupils' writing?* and *How can young writers who are learning English in academic contexts be guided in making effective language choices?* The approach was developed in a series of activities over the past four years as researchers and teachers (in the USA) collaborated to design strategies that would better address the needs of children who are learning English at the same time as they are struggling to engage in grade-appropriate academic work.

The strategies draw on a systemic functional linguistics (SFL) framework that focuses on valued *genres* and the *language features* that are expected in realizing those genres (Christie and Derewianka, 2008; Derewianka, 1990; Schleppegrell, 2004; Schleppegrell & Go, 2007). As discussed by Derewianka and Jones in this special edition, SFL is a theory of language that links language forms with the meanings they present, and it offers a meta-language for talking about language that can help learners relate language and content. SFL uses *genre* as a key construct for thinking about the purpose and context of a text, and offers tools for identifying the *language features* that are functional for achieving each of the *stages* that a genre moves through in accomplishing that purpose. Some work has been done to relate SFL theory to the work of

teaching and learning in the early elementary language arts program (e.g., Christie, 2005; Unsworth, 2006), and as university researchers, my graduate students in language and literacy (masters and Ph.D. levels) and I drew on this work to help primary school teachers develop a useful meta-language for talking about a genre, its stages and its language features. By using the SFL meta-language with their pupils, teachers were then able to talk explicitly about the ways authors present meanings in texts and their expectations for the language the children would use in their writing about the texts they read.

The context for the work was an urban school district in the northern U.S.A. where bilingual pupils and English language learners, mainly from the Middle East, comprise 90% of the primary and secondary school population. Among the challenges teachers in this context faced was helping children develop ideas about *what* to write and helping them structure their writing in valued ways. Through interaction with teachers in workshops and in observation of their classrooms, we identified ways that a functional grammar approach could enhance the ways teachers talked with their pupils about the texts they were reading and could help them better scaffold the writing tasks they assigned. As writing was taught in the context of the reading program, we helped teachers develop ways of enabling children to write about the texts they read, using SFL metalanguage and constructs to support deeper reading comprehension and help pupils learn to write highly valued genres.

The two writing tasks we focused on are the *recount* and the *position-support* essay³. The recount is a useful genre to learn, as it can meet a variety of purposes in schooling, from summarizing the events in a narrative to reporting on field trips or steps in a science experiment. In addition, a brief recount is often used as evidence in an argument or persuasive writing task. The *position-support* essay often appears in high-stakes writing tasks, and as it can include a recount stage, students can use their knowledge about writing recounts in this task as well. Each of these

³ This genre is also sometimes referred to as an argument or discussion. The genre names/labels adopted in this project depart from those used in other SFL analyses to some extent, as we wanted to connect with the adopted curriculum and assessment tasks. We used linguistic criteria based on SFG to distinguish each genre and describe its stages.

tasks can be described in terms of the *stages* needed to successfully accomplish its goals, so to help teachers introduce the stages of these genres to their pupils, we highlighted the language choices that are functional for writing the different stages of these key genres. In connection with this, we also had the children explore the ways authors of the texts they read make different choices about language at different stages in the texts they write.

Introducing functional grammar constructs to support deeper reading

The texts that children read provide useful models of how different language choices are functional for doing different kinds of things, so we wanted to have children look closely at an author's choice of words. Drawing on functional grammar constructs, the teachers introduced their pupils to the notion that authors use different kinds of *processes* at different points in a text, and that a character's development can be analyzed by investigating the processes the character is involved in at different points as a narrative unfolds. The children learned to categorize the clauses in the texts they read as presenting *doing*, *saying*, *sensing*, or *being* (Martin & Rose, 2003), and they practiced tracking how characters or concepts are involved in different types of processes at different points in a text. Figure 1 is an example of a scaffold developed to support third grade (eight year old) children, working in small groups, in looking closely at an author's wording choices in a text from their reading program.

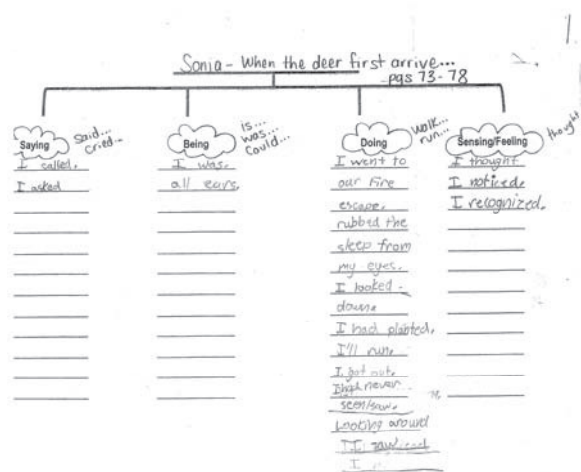


Figure 1

The text these eight-year-olds are writing about is *Two Days in May* by Harriet Peck Taylor, a story

about a girl named Sonia who lives in a city and finds that a family of deer has wandered into the garden of her apartment building courtyard. Sonia is excited to see the deer, and when she finds out that the animal control officers plan to shoot the deer to limit their population, she and the neighbors unite in a peaceful protest that ends with a rescue organization returning the deer to their habitat.

Figure 1 shows how a pair of students identified the different kinds of processes that the story's narrator, Sonia, engages in during the early part of the story. As *doing* is the most prominent process type in the story, developing the list of *doing* processes gave the children grist for recounting a sequence of events in the writing tasks they were about to undertake. Other children explored other parts of the text, and the teacher had the children report their results and used them to discuss how what Sonia did changed as the story proceeded. Working with small portions of text in this way helped students read more closely and deepened their comprehension. At the same time, they also developed new linguistic resources as they worked with the language the author used. As the pupils worked in groups to do this task, their talk about language and meaning also supported their oral language development. (For more on this aspect of the work see Schleppegrell, 2010).

Teaching the stages of a recount

Following the analysis of the processes in the text, students were ready to recount the events in the story, and so teachers introduced them to the overall schematic structure of the *recount* with its three stages: *Orientation*, *Sequence of Events*, and *Evaluation*. Figure 2 is a writing scaffold that third grade teachers used in one school. The scaffold comes from a different professional development program that teachers had previously attended, where the metalanguage they were offered to talk with students about the overall shape of a text was *Introduction or beginning*, *Detail paragraph*, and *Summary or Ending*. The teachers found these labels less than satisfactory, as they give no indication about the language choices needed to present these stages. Drawing on the stages suggested in SFL frameworks, the teachers added to the scaffold the functional grammar metalanguage specific to a recount, as shown in Figure 2: the *Introduction or Beginning* is elaborated as *Orientation: time/place*. The *Detail*

Paragraph is more clearly specified as *Sequence of events: tell the story*; and what is expected in the *Summary or Ending* is more clearly specified as *Evaluation Judgment: your opinion*.

RECOUNT
BLUEPRINT

Introduction or Beginning *Orientation*: time/place

When the deer first arrived Sonia was in her apartment with her mom watching the deer

Sequence of events

Detail Paragraph *Events*: tell the story

Sonia rubbed the sleep from her eyes. Sonia looked down at her small garden and planted behind her apartment building. Five animals were grazing on the new lettuce in her garden. Sonia told her mom and went with her father. Sonia thought the deer were amazing sight.

Their fur was golden

Summary or Ending *Evaluation Judgment*: your opinion

It was exciting for Sonia because she had to see deer

Figure 2

Teachers helped pupils recognize that the *orientation* would include *circumstances of time or place* (Halliday & Matthiessen, 2004); (here, for example, *When the deer first arrived...*) and that the *Evaluation* should include a *being* or *sensing* process. This metalanguage made the “content” of each stage more explicit to students, while still leaving options open for them to make their own choices, and helped the children understand *how* to write a beginning, middle, and ending for the particular purposes of recounting of events and indicating their significance. Teachers found that using the metalanguage of SFL to indicate the general nature of the language needed at each stage was an improvement over the formulaic sentence beginnings they had often been encouraged to teach as scaffolds for writing introductions and conclusions.

Figure 2 also shows what one typical student wrote. The orientation, *When the deer first arrived*, is taken from the reading scaffold (Figure 1), and the

sequence of events draws on the *doing* processes the children recorded there. Of course many of the children wrote about the same set of events, and those who were at early stages of language development often used the exact words of the author. While teachers at first expressed some concern about this, they found that as the children gained experience and developed proficiency, they more frequently used their own words. But by using vocabulary from the texts they read, even beginners were able to produce language that went beyond the common, everyday vocabulary typically used by English learners. For example, *Sonia rubbed the sleep from her eyes* (in Figure 2) comes directly from the story, but enabled the pupil to express this idea in a more literary way, expanding his linguistic repertoire. Textual borrowing is a necessary step in the development of new language, and as the children took up ownership of an author’s words, teachers began to see them as more capable.

The *evaluation* stage of the text in Figure 2 consists of the sentence *It was exciting for Sonia because she got to see deer*. The writer uses a *being* process, *it was exciting*, to evaluate Sonia’s reaction to the events, and supports this judgment with a *because* clause. Writing an evaluative statement is challenging, but with modeling and support from teachers that helped them understand both the purpose of the evaluation and the language that would help them write this stage of a recount, the children began to produce more effective concluding statements.

After a few months of this work, when we observed the classrooms, we saw eight-year-olds reading their texts to each other, with guidelines in front of them that said

Orientation: setting and time;
circumstances

Events: *doing* processes

Evaluation: sensing or being processes

The children used these guidelines to give each other feedback on their writing that went beyond the comments about word choice, spelling, or grammar that had previously been the content of their discussion with each other about their texts. Children listened to each other reading their texts aloud and evaluated whether each text had the expected stages. We heard children telling each other “you don’t have an evaluation yet; you need

a *sensing* or *being* process at the end.” The metalanguage gave the children specific guidelines for evaluating each other’s work, making their interaction about their writing much more successful.

Teaching the stages of a position-support essay

After the children could write a recount, we introduced the idea that the recount can serve as evidence or support for a different kind of writing, where a writer has to take a position and provide support for it. This is a genre that frequently appears in high-stakes writing tasks, and teachers want to help students be successful with this kind of writing. Figure 3 is a writing prompt that teachers developed that asks the children to draw on the same story events, but to expand their writing to take a position on an abstract question, *taking a stand*. The position-support essay includes the stages *Introduction/Thesis*, *Support*, and *Conclusion*, with the *Support* stage drawing on the recount writing the students have learned. Note the functional grammar metalanguage that the teacher uses in Figure 3, reminding students to write the thesis in the present tense and use a *being* or *sensing* process; to use *doing* and *saying* processes to retell events in the past tense, and to write an evaluation or judgment in the conclusion.

write about the theme: Take a Stand

When you take a stand you make an opinion and stick to it. We take a stand when we stand up for something we believe in.

People who take a stand might:

- Defend a friend who is being bullied,
- Speak when they see something happen that they know is wrong,
- Fight against an idea that they feel is bad or hurtful.

Use an example from a story to explain how a character took a stand and explain why taking a stand was important.

Introduction:

State your MAIN POINT (Thesis)

Use one sentence in present tense. Use a being or feeling word!

Support:

Use examples from a story to prove your MAIN POINT. Retell events from the story and use doing and saying words. Write in the past tense.

Conclusion:

Write an evaluation or judgment. Tell your opinion of the example and why the example supports your MAIN POINT.

Figure 3

This kind of writing is difficult for language learners, as they need to be able to connect to the

abstract ideas in the prompt, come up with their own perspective on the issue, and then structure their responses appropriately. Teachers report that often their pupils have so much difficulty with the first two aspects of the response that they are unable to focus on the structure of the text they write. As the reading program provides good examples from literature, and the pupils spend a lot of time reading and discussing this literature, teaching students to use what they have read in thesis-support essays makes writing to an abstract theme less complex, allowing teachers to focus their pupils’ attention on structuring the texts in effective ways by drawing on language from the reading they have done.

Figure 4 depicts the writing that resulted, showing how a pupil drew on the reading and the recount of Sonia’s experience to argue that *you can take a stand when someone or something is in danger*, reporting that in the story, *Sonia wants to take a stand*.

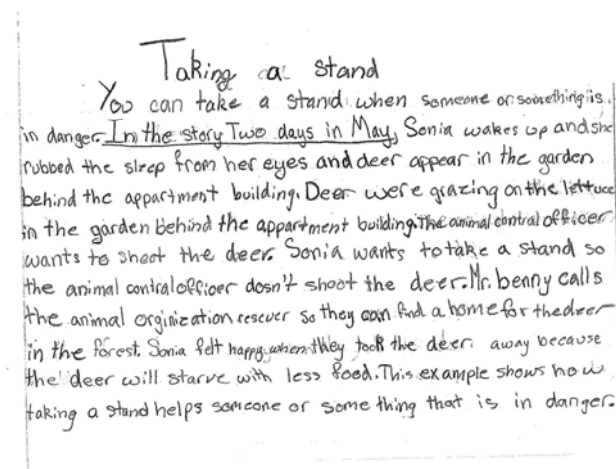


Figure 4

While we can see that the writer still has work to do to control the language, he has developed an understanding of the expected stages. We see the thesis stated in the first sentence, and then the recount that will serve as support, introduced with the circumstance *In the story Two Days in May*. The writer uses the events developed in the reading scaffold but also adds Sonia’s *sensing* processes in the sentences *Sonia wants to take a stand so the animal control officer doesn’t shoot the deer* and *Sonia felt happy when they took the deer away*. The final sentence of evaluation presents the point of the recounted example and links back to the writer’s main point, as called for in the writing prompt.

Conclusion

The reading analysis, development of a recount, and practice using that recount in a thesis-support essay enables the children to recognize how they can use examples from their reading to respond in high-stakes writing tasks. Teachers report that their students are benefitting from this work. They are more conscious about features of language in the texts they read and write, as they use the SFL metalanguage to name the grammatical features and genre stages of the texts they write. Using examples from their readings gives the class common experiences to write about, enabling the teacher to focus more on language choices and text structuring than on brainstorming ideas. As one teacher reports:

I usually spent 90% of our time helping the students connect to the prompt, leaving little time to teach how to structure their texts. This activity told students what their connection would be, so that our time was spent learning the structure and "parts" of the writing. The writing students produced was much better organized than I have seen in the past and reflected a higher understanding of the story.

Raising the achievement of pupils learning English as an additional language is a critical challenge, and teaching explicitly about language and what is expected in the writing tasks they are asked to do offers concrete support for their success. Teachers report that this work has provided them with more meaningful ways of talking about what is expected in the writing they ask their pupils to do, and that the children's writing has improved as a result.

The SFL metalanguage offers ways of linking meaning with the forms language takes, and has the potential to provide the kind of support for language development that children who are learning English along with school subjects need. As this project shows, rubrics and scaffolds that are already in classroom use can be enhanced through specification of genre stages with explicit attention to the language features relevant to writing those stages. Such explicit attention to language also often helps teachers write prompts that better elicit and support the kind of writing they expect. This functional approach to language helps children learn how English works in the texts they read and offers them new ways of developing the language resources they need for writing.

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Steps in linking reading and writing: writing a *recount* of events in a story

- **Introducing the notion of *processes* of different kinds and *circumstances of time and place***

Children explore a text to identify the processes that a key character is involved in, categorizing them as doing, being, saying, or sensing.

Children explore how an author introduces events with circumstances of time and place.

- **Introducing the *stages* of the recount**

Teacher presents and models the orientation, using circumstances of time and place; the sequence of events, using doing and saying

processes, and the evaluation, using being and sensing processes

- **Children write a recount of events in the text they have read, including the three stages**
- **Children read their recounts to each other, asking whether the recount has an *orientation*, *sequence of events*, and *evaluation*, and looking for the language features that enable these stages**

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Using Systemic-Functional Linguistics in Content and Language Integrated Learning

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Introduction

According to Eurydice (2008: 112) Content and Language Integrated Learning, abbreviated to CLIL, is the term used to refer to “all types of bilingual or immersion education”. The definition goes on to explain that, in this type of education, two or more different languages are used to some extent in teaching subjects which are not language classes. By defining CLIL as bilingual/ immersion education it is possible that a key characteristic of the approach is hidden. While immersion programmes have served as a model for CLIL initiatives, CLIL refers to the teaching of subject knowledge through a language which is not the students’ first language (L1), nor (significantly) used in the community. For example, in a Spanish context this could be the teaching of history through English, whilst in a UK setting it could be the teaching of geography through French. In both cases the students are studying in a foreign language.

The experience of learning ‘content’ in a foreign language is very different from studying in a language which, whilst not being the students’ L1, is generally used around them. Thus, whilst a number of commonalities exist, there are also important differences between the learning contexts of CLIL and English as an additional language (EAL). The differences present a number of challenges not present in what is generally thought of as immersion education, challenges which force us to rethink goals, methods and possible achievement (Dalton-Puffer 2007, 2009; Pérez Vidal 2007; Lasagabster and Sierra 2009, among others). One key challenge is that goals are not limited to content knowledge and developing control of an academic register. Rather it is hoped that students will also learn interpersonal communication skills (Cummins 1979) as they interact in classroom situations.

Another difference between the contexts of CLIL and EAL is related to the teachers, and their

background. Teachers involved in CLIL programmes tend to have a different profile from those working in immersion education. They are usually content specialists and non-native speakers of the language of the CLIL class. For this reason it is therefore important to consider the type of knowledge of language that teachers facing this challenge would find most useful. In this article, I move from a brief sketch of CLIL in Europe to focus on examples of student productions from CLIL classrooms, and show how the Systemic Functional Grammar (SFG) model can reveal to teachers features of the discourse of their discipline. I will show that despite differences between CLIL and EAL teaching/learning situations, language needs are similar and so are the possible solutions.

CLIL in Europe

Behind the institutional encouragement which is increasing the spread of CLIL projects lies the important objective of strengthening European citizenship through ability in the languages of the Union. This is the “2+1” objective, referring to the aim that Europeans should be functional in two European languages besides their mother tongue. To this end, countries have been introducing CLIL in their schools in very different ways, at different levels, in different disciplines, but for the same reason: in the same class period pupils learn both the content of a subject and a new language, that is, they get two subjects for the price of one, often called the “2 for 1” policy. At the time of the 2008 Eurydice document data collection, only six of the 31 countries studied did not have CLIL as part of mainstream education. Despite its presence in most countries, though, only a limited number of students were involved. This is changing fast in some areas. In Spain, for example, a country which for historical reasons has scored low on knowledge of foreign languages, the different regional governments in charge of education are supporting CLIL initiatives strongly, some presenting the aim of producing a shift from social monolingualism to multilingualism through education (Lorenzo 2010).

Given the variety of CLIL teaching/learning situations around Europe, there is no uniformity as regards teacher requirements for participation, though in general the usual teaching qualifications for the subjects involved are considered adequate for teaching in CLIL contexts. Only a few countries demand language certificates or proof of language level (Eurydice 2008). For the teachers, setting up

CLIL programmes and working in them is welcomed as a challenge for some, but seen as threatening by others. Most teachers consider that being a non-native speaker is a disadvantage (though the students don’t necessarily agree), but know their expertise lies in their content knowledge, and this is the focus of their classes. Much of the rejection which CLIL sometimes meets among school teachers comes from uncertainty and insecurity. It would therefore seem helpful if CLIL teachers had a model of language to support their simultaneous teaching of content and language in a principled way. This article will discuss how SFG might provide such a model.

CLIL: difficulties, advantages, needs

While Systemic Functional linguists argue for a focus on language in both first language and EAL educational contexts, there are reasons to insist even more strongly in the case of CLIL contexts. Learning the range of language necessary to be “functional” as the EU proposes is especially difficult when the foreign language is primarily used in one location, the school. This is a territory in which, as we all know, the roles of the players (the language users) are subject to rules restricting the types of interaction normally permitted, and this limits the language with which they are carried out. Traditional classroom interactions cannot prepare students for the types of communicative situations they will come across outside them. This was one of the conclusions from a wide study of CLIL classrooms which found very limited opportunities for general interactive language use by the students (Dalton-Puffer 2007). CLIL has, as mentioned earlier, a double language objective – to teach the students both academic discourse and language for general interpersonal interaction (Cummins 1979) but this needs to be achieved without the support of an external community using the target language.

At the same time, the community created inside the classroom (where the foreign language is used to carry out the teaching/learning activities) provides the logic and support for the use of that language, something which has been difficult to achieve in the traditional foreign language classroom despite changes in teaching methods. In CLIL classrooms, language is both tool and target: the learner needs words and linguistic forms to understand, appropriate and question content. Conversely, content is what triggers the use of

language and gives meaning to the need for and use of both receptive and productive skills in that language. Besides this, the very evident difficulty of studying in a foreign language makes teachers see their students' need for support when learning new content and for a variety of activities to be organized around that content, including the creation of opportunities for the learners to participate in different types of interaction. Thus, CLIL brings into play real communicative uses of the foreign language, and, when teachers respond to the challenge, changes in methodology for teaching content.

CLIL as a growing phenomenon in the European education scene is attracting a lot of research interest, especially since, as Dalton-Puffer (2007) observes, the approach enjoys a lot of intuitive credibility, but lacks a sound theoretical base. As regards foreign language learning, studies show that CLIL students out-perform non-CLIL peers two and even three courses above them, despite the differences in cognitive development produced by age (Lasagabaster 2008; Navés and Victori 2010). However, there are not many results on how these students perform in content subjects.⁴ Here we meet a difficulty: the question of what to measure, since performance in most subjects is made visible to a large extent through language. If the students do poorly, do we put it down to lack of content knowledge or insufficient knowledge of the language in which to express that content? Systemic Functional linguists argue that knowing disciplinary content includes knowing the language of the discipline, and that knowledge is created in and through language.

Language, then, plays a fundamental role when we are learning a subject, and so, as Coyle et al. (2010: 36) insist, "...teachers need to make explicit the interrelationship between content objectives and language objectives" for CLIL to be successful. For this aim, plenty of help is available: a large amount of research and practice has been built up in different disciplines by SF linguists and teacher trainers (see Schleppegrell 2004; Christie and Martin 1997; Christie and Derewianka 2008; Whittaker et al. 2006 among others). Given that not even students studying in their L1 succeed in

developing effective control of subject knowledge and discipline specific literacy, intervention using the tools that SFG offers can be used to lead to increased awareness and control over language at school (as the various interventions discussed by authors in this special edition show).

Language use in CLIL classes: an SFG analysis

To illustrate the type of awareness SFL offers CLIL teachers, I will provide some examples of spoken and written language from two CLIL history classes in Madrid state secondary schools. These are taken from a research project⁵ which used the tools of SFG to examine the language of CLIL classrooms in order to offer support to teachers working in these projects. Linguistic analyses of students' and teachers' language use can make them aware of the way meanings are made in their discipline. In particular, this knowledge would allow teachers to intervene at the right moment – when students need support in order to construct the meanings they need in the subject – with explicit information about the language required, information not limited to the technical vocabulary of the subject, as is usually offered (e.g. Met 1994), but including the types of texts or genres of a discipline, and the grammatical choices they favour.

Data was collected from the two classes focused on over the four year period of obligatory secondary school, from age 11/12 to 15/16. This is the period of schooling with more CLIL initiatives in Europe, and coincides with the moment when discipline-specific academic language becomes demanding for many students. The discipline – history – was chosen as a subject taught in English in all the Madrid secondary schools with CLIL projects. The data consists of spoken language which was recorded in an end-of-topic summary session, and texts written in class on the same topic, (with no help from textbooks or teacher) a few days later. We found that many of the problems of learning in a foreign language are not so different from those experienced in L1 classrooms. Here I comment on examples from three key areas: the transition from oral to written academic register using the resources of the

⁴ But see Coetze-Lachmann 2007, who found incomplete knowledge of content and discipline-specific register in both CLIL and L1 classes, and Seikkula-Leino, 2007 who found no significant differences between CLIL and L1 groups in content knowledge).

⁵ The UAM-CLIL Project. Thanks to UAM-CAM for grants supporting our work during the years 2006, 2007 and 2008.

nominal group, the grammar of cause and the expression of evaluation.

Academic register: nominal groups

As users of academic texts, we easily distinguish between language which is more formal, in a more “written” style, the type of language we find in textbooks, for example, and a more informal spoken register. The main difference between more public, written language and the language of conversation has been described by Halliday (1989) in his work on register, and lies in the grammatical units which build up the meanings. Informal spoken language is made grammatically out of chains of short clauses, linked by coordinating or subordinating conjunctions: “and”, “but” “or” “because”, “when”, etc., while formal written language compresses the information into heavily modified nominal groups. This difference is functional, related to the conditions of production and reception of texts, and to the types of meanings involved, and has to be learned (see Dare, this volume). The difference can be seen in examples 1–5 discussed below⁶. Text 1 is a segment from a second year student’s written text on the causes of the plague:

Example 1

The black death transpasit because of the rats, because they may be go to the food and they infected and later the humane eat and they die and may be because of the dogs too because the rats go with the dogs and they infected and then the human touch the dog and they then die, and because of the black death most of the people die. ...

This text has many features of orality, the most obvious being the way one orthographic sentence is composed of 11 clauses, linked by “and” and “because”. However, some students at this stage were already beginning to use the features of academic register found in their class material, specifically, starting to use the nominal group to carry a lot of the meaning. We can see this in example 2 from a class discussion session on feudalism.

Example 2

the prosperity of the agriculture made that the population grows

The phrase “the prosperity of [= from] the agriculture”, sounds much more like the language of history than the written text in example 1. Example 2 also shows another feature of some genres of history, found by Coffin and other SF linguists (e.g. Coffin 2006, Veel and Coffin 1996): the disappearance of the human actors involved in the events. In “the prosperity of [= from] the agriculture”, the peasants who farmed the land are the ones that started the chain of causes leading to the production of that prosperity, but they do not appear in the language representing it, only their activity – agriculture – remains. This is very different from example 1, where the historical actors are collectives of animate beings: rats, humane [= humans], dogs, people who carry out different actions.

The input students receive in their classes, then, helps some of them assimilate the register they need. However, if teachers are aware of this feature of academic language, and of the possibilities it gives to manage information and organize the text, they can help their students learn how to use grammar to produce the discourse of history. This is especially necessary in CLIL situations, where analysis showed that students of the same age, learning the same subject in Spanish produced a lower proportion of features of orality in their writing than those learning in the foreign language (Llinares and Whittaker, in press).

Academic register: expression of cause

An important academic function in history is that of explaining causes and consequences of historical events. SFL research (e.g. Christie and Derewianka 2008, Coffin 2006) have found a progression in the grammatical expression of cause, linked to the development of nominalised language. This is well illustrated in examples 3–5 below, all written by the same student – one of the best in the class according to his teachers – when he was in the first, the third and the final year of obligatory secondary schooling:

Example 3

The civilizations were so important **because** the most powerful people stood there and **because** they were the main sources of work and culture

In example 3, causes appear in subordinate clauses and are signalled by “because”, as we saw in example 1 above.

⁶ The students’ texts are reproduced exactly as they wrote them. The spoken language was transcribed to be reader-friendly, following in essence the Santa Barbara conventions.

Example 4

At that time poor people didn't have resources to develop and rich people became richer **with the rise of taxes and prices during the Inflation after mercantilism.**

Two years later, we see this student compressing the expression of cause into a prepositional phrase, including a heavily post-modified nominal group, typical of academic written language.

Example 5

Another important **cause** was the differences of costumes, languages and traditions in the balcans that **led** to many crisis.

And in example 5, the cause of the First World War appears in lexical items: a noun and a verb, again in heavily modified nominal groups which allow information to be placed in different positions in the clause. Students whose literacy skills are more advanced seem to be able to cope with the challenges of learning the register of subjects studied in a foreign language. Many, however, would benefit from having that language made explicit to them using a functional model like SFL.

Academic register: evaluation

Finally, as SFG work on history has shown (Coffin 2006), the more advanced history genres not only explain causes and consequences of historical events, but also take a stance towards them. Writers, then, have to take on the role of the historian (Veel and Coffin 1996), and to do this they need to control the grammar and lexis of evaluation. Examples 6 and 7, on the reign of Philip II of Spain, show a number of resources for evaluation being used by the students in their writing at the end of the third year.

Example 6

This **amazing fact** was **really relevant** to history, and mainly for economy and mercantilism

Example 7

Unfortunately, for him, his empire suffered two bankroupts.

Example 6 shows a student presenting herself as an external evaluator of history, while in example 7 the point of view of the historical actor is included.

Some of the better students, then, are beginning to learn the language of evaluation, but, again, this could be refined, and extended to all the class, if teachers were able to take advantage of tasks students are involved in and the 'teaching moments' they create to integrate a focus on the language required.

Final reflections

In this article I have taken a brief look at the growing phenomenon of CLIL in Europe and you have seen examples from CLIL students' language selected to show what the SFG model can reveal to content teachers giving their classes in English. The model is able to show why texts – written or spoken – have the linguistic features they do, and why some are more successful than others in the situation in which they are used. It is a model which came out of collaboration with practising teachers (Halliday et al. 1966), and is used in many parts of the world by both language and subject teachers in their lesson preparation and in their daily work in the classroom. Not surprisingly, the teachers we have worked with have shown great interest in what the SFG model reveals about the language of their subjects and about their students' and their own uses of language in the classroom, seeing the potential of the model for integrating work on language as they teach their content classes.

Interestingly, CLIL is having repercussions which extend far outside the content classrooms. At least in Spain, it has started a debate in educational circles in which language – and not only foreign languages – is at the centre. Teaching in a foreign language has made educators aware of the role of language in learning a subject, in a way that teaching in an L1 – transparent for the teacher, though often not so for the student – has been unable to do. This has led to the recognition by some educational authorities of the potential of SFG in planning language across the curriculum projects which are now being implemented (Lorenzo 2010).

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SFL: A theory of language for Dynamic Assessment of EAL

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As part of a UK project on classroom-based assessment, I observed 6 and 7 year old learners of English as an additional language (EAL) following instructions from the teacher and having great fun making, then eating, a sandwich.¹² As this was part of a unit on instructional texts, they were then asked to produce a recipe or instructions to tell someone else how to do the same. Here is a typed up version of Adam's text:

<i>Making a sandwich</i>
1. Get a slice of bread.
2. Put a little bit of margarine.
3. x
2. get a little bit of margarine and spread it on my bread.
3. Then I put four pieces of cucumbere on my bread.
4. Then I folded the bread.
5. then I eated my bread.

Adam wrote a title, then clearly identified five steps. The text starts reasonably well with two instructional moves, 'get a slice of bread' and 'put a little bit of margarine', but there is some confusion as he has forgotten to list the ingredients and so the function of 'put a little bit of margarine' is not clear. Perhaps realizing his

¹² The data analyzed in this paper was collected as part of an ESRC-funded Study of Classroom Assessment of English as an Additional Language: Key Stage 1 Contexts 1999-2003 (R000238196, Rea-Dickins and Gardner). The majority of children come from homes where Punjabi or Gujarati are spoken. We are indebted to the school staff and children for welcoming us into their classrooms.

first attempt at step 2 is also incomplete as a formal written text grammatically and semantically – it requires a circumstance to show where the margarine is to be put - he rewrites it, adding 'and spread it on my bread'. This makes the meaning clearer, and the grammar more complete, but it introduces a further complication, 'my'. It is not that 'my' forms an ungrammatical nominal group; 'my bread' is perfectly acceptable as a group, in the prepositional phrase 'on my bread', and in the clause 'spread it on my bread' as a whole. The problem is that this possessive adjective 'my' triggers a different genre, with a different purpose. The text switches here from one that instructs a reader how to make a sandwich, to one that tells how Adam, the writer, made his own sandwich recounting how 'I put four ...'. This 'put' repeats the written form 'put' from line 2, but when combined with 'I' (I put), it loses its instructional force. The text changes from an instructional genre to a recount genre. Steps 3, 4 and 5 beautifully realize the last three stages of a recount with 'I' and simple past tense verbs (put, folded, 'eated'). This example indicates how a better awareness of the difference between listing ingredients and telling an audience what to do as opposed to recounting personal events in a sequence (i.e. these can be highlighted as distinct stages of the genre) can help writers shape their intended meanings. It also shows how grammar is crucial for making meanings in context.

Systemic functional grammar (SFG) views language as a resource. We choose from a complex web of **systems** or sets of choices according to our **functional** purposes. Consider the system of possessive adjectives {my, your, his, her, its, one's, our, their}. The choice of 'my' triggers a personal recount genre; the choice of 'his' or 'her' would change the function of the text from telling the reader how to make a sandwich, to telling the reader how to make a sandwich for a third party of a specific gender. The choice of 'their' brings in notions of largesse or maybe domestic service depending on the specific situation and cultural context.

There is much more that could be said about this text which was produced as part of a classroom-based assessment activity, but I hope I have shown how grammatical choices are important for meaning-making, and how a theory that makes the connections from lexico-grammar to genres in their cultural context can provide an invaluable linguistic lens for assessment in the classroom.

My second example aims to show how SFG can illuminate classroom based dynamic assessment of EAL.

Classroom based assessment

Assessment is increasingly linked to learning in the classroom, as the focus in theory, in curriculum guidance, and in classroom practice has shifted from formative assessment (FA) (vs summative assessment Torrance and Prior 1998; Rea-Dickins and Gardner 2000) to assessment for learning (vs assessment of learning ARG 2002) and more recently in second language contexts to dynamic assessment (vs static assessment). Differences among these can be usefully explored (e.g. Davison and Leung 2009, Poehner and Lantolf 2005), but all are concerned with the ongoing development of student learning which places assessment in the classroom as an integral part of the teaching and learning process.

Dynamic assessment and ZPD

As Poehner and Lantolf argue, “the express goal of DA [dynamic assessment] is to unify assessment and instruction into a single activity, the goal of which is learner development” (2005: 254). Moreover, “the primary difference between DA and current approaches to formative assessment [is that in FA] learning is a potential consequence that is sometimes unintended” (2005: 255). This, they argue, is because formative assessment is ‘not framed by a developmental theory, but instead is based on teachers’ intuitive classroom practice’ (2005: 260). In contrast, DA is systematic, and is informed by Vygotsky’s theory of scaffolding and Zone of Proximal Development (ZPD). Thus in assessment, learning can be explicitly and consciously mediated through prompts, hints and questions designed to improve learner performance. A timely question to Adam about the ingredients, or ‘whose bread?’, or about the purpose of his text, might have been enough to reorient the text, and would tell us what he can do with assistance. It could (if appropriate) change a static assessment into a more dynamic assessment which focuses ‘on modifiability and on producing suggestions for interventions that appear successful in facilitating improved learner performance’ (Lidz 1991: 6 in Lantolf and Poehner 2004: 50).

Dynamic assessment and SFL

I would argue that for dynamic assessment to be effective, particularly with learners of English as an additional language, the mediating prompts need to be informed not only by a theory of learning, and an awareness of learning goals, but also by a theory of language, i.e., by an understanding of how language works in context,

and an awareness of the language used to achieve the learning goals. The relevance of SFL to understanding the discourse of EAL assessment has been explored elsewhere. For example, Gibbons (e.g. 1998) draws explicitly on Martin’s (1992) mode continuum to explain how recasts in scaffolding work to push learners from language in action towards an academic register; Leung and Mohan (2004) draw on SFL to explore reason-giving by learners in the feedback stage of classroom based assessment. My second example intends to illustrate how an understanding of language through an SFG lens can move us beyond linguistic intuitions in dynamic assessment.

In the same school where Adam produced his sandwich text, I observed a lesson on writing story endings, which was also described as a classroom-based assessment opportunity. In the previous days, the children had read and discussed the characters and plot of the beginning of the lion and the mouse fable. Then in the hour available, the children in small groups generated ideas, developed these through drawings, and drafted their story endings. After each stage there was teacher guided reporting, along the lines of that described by Gibbons (2003), which Lantolf and Poehner (2004) interpret as dynamic assessment. The three groupwork-reporting cycles are described in detail elsewhere (Gardner 2004). Here I will focus on how the concept of register and genre help us understand how the language reflects the different situations at each phase of the lesson, and how this supports the acquisition not only of the learning outcome (writing a story ending) but also of the language needed to do this effectively.

The aim in the lesson is to move all the learners from box 1 where they start with no ideas for a story ending, to box 12 where each group has drafted their own story ending (see Table 1 at the end of article). Each of the three groupwork – reporting cycles (generating ideas, developing ideas, drafting story ending) starts with a groupwork task and is followed by a reporting of the task outcome to the class by several groups. This is done with teacher mediation or dynamic assessment which consolidates what has been done and prepares learners for the next stage. This is done as a whole class activity, and the feedback although in response to one group at a time, tends to be useful to the whole class, as in group dynamic assessment (Poehner 2009). Moreover, there is evidence that questions such as ‘*what happened next*’ are picked up by the learners and used in subsequent groupwork to good effect. The

following interaction between teacher (T), student (Joh) and bilingual teaching assistant (TA) illustrates how such questions can be integrated into task reporting.

Dynamic assessment of ideas generated (Box 4)

- 77 Joh you can get scissors and cut the rope to get the (.) the lion out
(.) =*pause*
- 78 T ok (.) who would get the scissors?
- 79 Joh Mouse
- 80 T the mouse would get the scissors – where would he get them from?
- 81 Joh erm
- 82 T not quite sure? *Joh shakes her head*
ok so then he got the lion out – and then what happened?
- 83 TA Phachi shu thai?
<What happens next?>

The success of the lesson on writing story endings which I observed can be explained as DA, but it can also be viewed through the lens of SFL. Each groupwork-reporting cycle involves movement along a register continuum. Learners' roles shift from task-oriented talk among peers to the naturally more formal presentation of more polished work to the teacher and the class. Each successive cycle supports the shift from an intimate, bilingual, multi-modal (hard to transcribe) type of language, or register, for getting things done (box 1) to a more formal English-only register for recording stories in writing (box 11). These register shifts were planned for in the task design.

The dynamic assessment occurs in the fourth step of each cycle (Boxes 4, 8 and 12 in Table 1), when learners have had an opportunity to develop and rehearse their ideas and are receptive to mediation. The teacher's feedback responds to the detail of the learners' reports, but also moves the class toward the end product. The questions in box 4 focus on action processes (what happened next) and on elaborating circumstantial details (where Line 80); the questions in box 8 continue to build detail, and focus on the motivation of the characters, how they felt, and an evaluation of the ending (happy, sad, ...) (see

Shleppegrell's article, this volume, for discussion on students' use of evaluative language in their writing). The language of these questions is that of mental processes and evaluative language (referred to as appraisal in SFG). Then by box 12 the comments are highlighting the varied ideas and where the language is appropriate for writing a story ending. This anticipates the task of editing for the subsequent day. In this way we can see different patterns in the lexico-grammar of the questions at each stage, which we know are designed to move the learners toward the written story ending. We see here how the DA responds to the learners' reports and anticipates where they are going. It is fully embedded in the classroom teaching and learning, but also provides opportunities for regular language sampling or recording learner language and its context of production for monitoring and assessment purposes (Gardner and Rea-Dickins 2002).

Lantolf and Poehner have promoted DA arguing that it differs from formative assessment in general in several major respects including the claim that DA is based on theory. They are referring here to Vygotskian theory of learning through mediation. However, effective formative assessment also requires a theory of language that can explain how language works in specific educational contexts for specific assessment purposes. Systemic Functional Linguistics (SFL), a theory of language as a social semiotic, is just such a theory. In the examples above, we see how the cultural genres with their specific purposes and stages; and the register shifts from multilingual, multimodal talk among classmates to written English story endings (Box 1 to Box 12, Table 1) are reflected in the lexico-grammar of the learners and teachers. Many teachers make these connections intuitively. An SFL informed awareness of language can increase the number of teachers who do so; and provide a confidence through rationale to those who rely on intuition. Teachers may wish to record their own classroom interaction to check whether the questions they ask are designed to respond to what the learners say, and move them forward linguistically by focusing not on grammar in isolation, but grammar in its social context. In this way SFG can be used to make sense of the lexico-grammar (e.g. possessive adjective; material action processes) of classroom assessment in specific educational situations and contexts.

Group work task	Generating ideas through talk	Developing ideas through drawing	Drafting story ending in writing
<i>Talk accompanying the group-work task</i>	1. gestures, eye contact, L1 (e.g. Gujarati, Mirpuri) whispers (37*)	5. get some scissors...can you draw a tree? we should've + <i>drawing and 'swirling' on the page</i> (94–101)	9. I know, you do two and I'll do three (222) write your name! (229) I've finished my sentence (232) that's not how you spell it.../a.n.t./ (<i>sounding out a word</i>) (225)
<i>Output of groupwork</i>	2. Verbal plan for story ending	6. Two drawing sequence of story ending	10. Written draft of story ending
<i>Reporting output to the class</i>	3. (planning the story ending) <i>I think – I think the mouse – there nibbled a big hole in the net – the the [lion] can get out</i> (59)	7. (telling the story ending with reference to the drawings) <i>when the mouse got the lion out of the net they the lion and the mouse be friends</i> (119)	11. (reading aloud) <i>WHEN THE LION GOT OUT THE TRAP THE MOUSE AND THE LION BEED FRIENDS</i> (266)
<i>Teacher mediation of reporting and feedback on output from groups (dynamic assessment)</i>	4. accepts and recasts; asks for more detail, pushes for what happens next <i>then what happened after that in your story?</i> (70)	8. <i>why did the mouse want to get the lion out?</i> (162) <i>what sort of ending did you come up with?</i> (122) T also elicits more descriptive vocabulary.	12. <i>what a lot of ideas in thatwe are getting now some real story writing ...in the past – the mouse nibbled ...</i> (266)

* Numbers in brackets refer to turns in the transcript of the lesson. (1)

Table 1: Three Teacher guided reporting cycles in a Story Ending lesson.

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Pedagogical resonance: improving teaching and learning

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Lexis Education

It has become clearer to me through my recent work with teachers that, if we wish to improve our teaching and learning, we need to consider a multimodal approach in which language, which can be seen as the primary resource for making meaning in schooling, and the other ways we make meaning (other semiotic resources) work together, or resonate. There are myriad ways of making meaning at any point in a lesson: through language, visuals (2-D and 3-D) and animation (e.g. movement of the visuals, gestures) and any combination of these and others.

To illustrate this, we could analyse a mathematics lesson and the ways the language used by the teacher (e.g. ‘Which theorem do we use when we...?’) and the mathematical task (e.g. ‘What is the length of side AB in the triangle...?’) as well as the static visuals (e.g. a geometric figure) and the equations themselves (including the mathematical symbols) are being exploited for teaching-learning purposes. We could also add animation and consider whether the teacher’s movements resonate with the other ways of making meaning so that the chance of the students developing the mathematical knowledge is maximised. For instance, when the teacher writes up on the board a solution to a trigonometric problem, do the teacher’s hand movements help make visible the interrelationships between the problem needing to be solved, the data provided, any visual provided or needing to be drawn and the various parts of the equations? Or is the student being ‘forced’ to make all the connections because the teacher is assuming that the student is able to independently relate the verbal (language) and symbolic (equations)?

I am suggesting in this article two things: first, that consciously using a multimodal (or multisemiotic) approach to teaching and learning will provide the student with multiple access points to the meanings by making them ‘visible’ and ‘audible’ and second, and crucially, that the different semiotic resources need to work in unison so they do not confuse the student but instead make the learning pathway more effective and efficient. This is what I am referring to as **pedagogical resonance**. It works in the same way as in wave theory in physics, where waves can

cancel each other when they are not pulsating in unison (i.e. they do not resonate) but amplify each other when they are. So the metaphor is that when the ‘how-we-teach wave’ and the ‘what-we-want-to-teach wave’ are synchronised so that they resonate with each other, we achieve heightened learning. It is this understanding that I will be discussing here – that learning can be more effective and efficient when the teaching is shaped by how knowledge is patterned. I will elaborate on a number of examples but, given the scope of this article, which complements work on graphic organisers (e.g. Stewart-Dore 2007), the focus here is essentially on ensuring that the visual and verbal meanings resonate pedagogically.

Representing meanings visually

If we are going to consider the verbal and the visual, we need an approach to language and visual semiotic resources that is useful in schooling. In this regard the systemic functional linguistics (SFL) based model of genre (e.g. Martin and Rose 2008 and discussed throughout this special edition) has already made some effective contributions. The claim is that through enacting the genres that comprise schooling, students as novice members of a cultural group are apprenticed into construing the world in ways similar to the more expert members of that culture (e.g. Christie and Derewianka 2008).

Genres can be seen as patterned ways of socio-cultural behaviour – patterned in how they are organised to unfold in stages and phases¹³, and patterned in terms of the language that constitute individual examples of the genres. So, in a discussion about pedagogical resonance, it is necessary for us to know what the patterns are in the what-we-want-to-teach wave so they can positively shape the how-we-teach wave. The examples I will be presenting here begin with a recounting genre followed by some of the describing and organising genres, and ending with an explaining genre. These texts and the teaching-learning situations referred to have arisen in my work as an educational consultant in language and literacy across a wide variety of geographic contexts, including Australia, the UK, Sweden and Hong Kong.

Recounting significant events

It is not unusual to see a class work with a timeline on the board when the activity is to recount events. It appears, though, that many

¹³ Phases are parts of a text within the stages of a genre which show greater variation in terms of the meanings that they make than the stages.

students find it difficult to transfer the various aspects discussed at each of the major points on the timeline to a text we could recognise as a recount, a text that is organised according to elements of time and place. Let's use Table 1, which draws on extracts from a biographical recount of Marie Curie (Hiles et al. 1998), to show how we can support students in this.

Column 1	Column 2	Column 3
1906	In 1906,	Pierre was killed when he was knocked down by a horse-drawn carriage. Marie was offered ...
1906-1910	For four years after Pierre's death,	Marie continued to work ...
WWI	During World War II,	Marie and her first daughter Irène organised ...
1918-1924	Between 1918 and 1924,	Marie and Irène worked at isolating and purifying polonium ...

Table 1 Extracts from biographical recount

Table 1 shows a vertical timeline comprising specific dates. There are two aspects of this timeline (compared to a more traditionally-drawn horizontal timeline) that might make it easier for students to transfer notes on the board onto a vertically-aligned A4 page comprised of paragraphs. One is that the timeline (Column 1) runs vertically instead of horizontally and has notes on the right side (Column 3) which mirror how the text unfolds on the page. The other is that it shows how the specific dates on the timeline are typically verbalised through prepositional phrases or clauses of time in the Record of Events stage of a biographical recount (Column 2).

Using this representation, the teacher and students can jointly construct the paragraphs to recount each of the events and, in that way, develop students' writing and deepen their understanding of the field.

One could of course use a horizontal timeline but it would help if the teacher, through action, showed how the timeline is turned vertically to be placed on a page and then, because the notes for

each major period of time would be on the left, to 'flip' the timeline from left to right so that the notes are now on the right-hand side of the timeline. This achieves what the vertically-aligned timeline does.

Separating the personal from the instructional

Taking a class on an excursion is considered by many to be a valuable activity – well worth the time, energy and money invested. However, even students at the age of sixteen may have difficulty in separating the personal excursion activities (e.g. the people involved, the food, the transport) from the instructional purpose (e.g. the exhibition or the manufacturing process) (Polias 1997). One very simple way of identifying for the students that they should be working with different fields is to divide the board into two and when the class discusses the excursion, all of the non-technical aspects are written on the left side of the line and all the technical aspects are written on the right side. The students can then use the left-hand side notes to write a personal recount and the teacher can state that subsequent lessons will be focusing on everything on the right-hand side. This allows the students to deal with any anecdotes without being made to feel that their personal perspective on things is not valuable but it also allows the teacher to direct the students to where the learning will be focused.

Describing and organising

The next illustrations deal with those genres whose purpose is to describe, compare, organise or classify our world in increasingly technical and abstract ways, which we can see as one of the major goals of schooling (Christie and Derewianka 2008). Consistent with the recounts and other genres, each of these can be represented in a visually different way and each is linguistically patterned according to its purpose.

The purpose of the genres that describe and organise is to present information and they generally referred to as reports within SFL based genre theory. They are not dynamic in the way procedures instruct listeners/readers to do something, or the way recounts present a series of events that occurred, or the way temporal explanations set out a series of events that constitute how phenomena come about. The report genres present meanings that have been collected by others (usually experts of some kind), who have theorised about or done the research on a topic. So reports give information. They typically answer questions such as: What kind of deserts are there? What is socialism? How were medieval villages set out and how were things

ordered in them? We do not usually expect school students to go out and do research to establish the answers to these. We generally expect students to read published reports as if they were passive recipients of the knowledge offered by others. As such, we find that the texts that represent these meanings are organised in relatively static, modular ways and some have taxonomies of various kinds.

Descriptive Report

Let us begin with a descriptive report about an animal which may be represented by the teacher and students in a modular way (e.g. Board of Studies 1998). It could be aligned horizontally so that it is read from left to right (Figure 1) but, if it were organised vertically (Figure 2), it would match how it is typically arranged on an A4 page with portrait orientation.

What kind of animal is it? (Classification)	What does it look like? (Appearance)	Where does it live? (Habitat)	What does it eat and/or how does it get its food? (Diet)
How does it reproduce? (Reproduction)	What are its dangers? (Dangers)	What is it used for? (Uses)	

Figure 1 Horizontally-aligned schematic structure of a descriptive report on an animal

Figure 2 Vertically-aligned schematic structure of a descriptive report on an animal

What kind of animal is it? (Classification)	
What does it look like? (Appearance)	
Where does it live? (Habitat)	
What does it eat and/or how does it get its food? (Diet)	
How does it reproduce? (Reproduction)	
What are its dangers? (Dangers)	
What is it used for? (Uses)	

The questions arranged in the above ways (be they horizontal or vertical) scaffold students into behaving like scientists if the teacher also makes explicit why scientists would organise the generic structure in this way. That is, the students need to be clear that the stages, especially the first two, come in that order because biologists have become experts in biology by learning to view and organize the world in certain scientific ways. For example, when coming across an organism, their training starts them off by trying to classify it and they do that initially through appearance: What is it? What are its features? Where does it live? Of course, tests in the laboratory are now available but students are generally taught to behave scientifically in a rudimentary way. A vertical orientation of the schematic structure would make the order of the stages easier to identify. It allows the teacher to easily point out that just as the students are led to undertake scientific behaviour through the stages and phases that come first in the text, they should also be taught to understand that when humans are involved in the animal or plant's life, the biologist is backgrounded and other perspectives are foregrounded; for example, those of the ecologist, environmentalist or horticulturalist.

Comparative Reports

Comparative reports occur in most areas of learning and their purpose is to set up comparisons. For example, in history it might be a comparison of Mussolini's Italy with Hitler's Germany and Franco's Spain; in science it could be comparing animal cells with plant cells; while in geography it could be comparing the climate of Hong Kong (coastal, humid sub-tropical) with that of Urumqi (continental, temperate). If the comparisons are going to be made at the micro-level, then it would support students to see each specific aspect alongside each other and, if at the paragraph level, then according to these larger chunks of information. It is then easier for teachers and students to make explicit, visually and verbally, the logical connections between each aspect.

Compositional Reports

The purpose of compositional genres is to present the component parts of things, what they are composed of. It is typical that examples of this genre are accompanied by visuals: a visual of a computer with all the component parts labelled, or a close-up photo of an insect or a plant or specific parts of a plant with all the parts labelled. As such,

the verbal text is often controlled by the visual text; the verbal usually sits alongside the visual element it is describing. In Figure 3, the verbal text consists of labels within the diagram. If it were a more detailed diagram, it could have a paragraph or two discussing the functions and features of each of the labelled components.

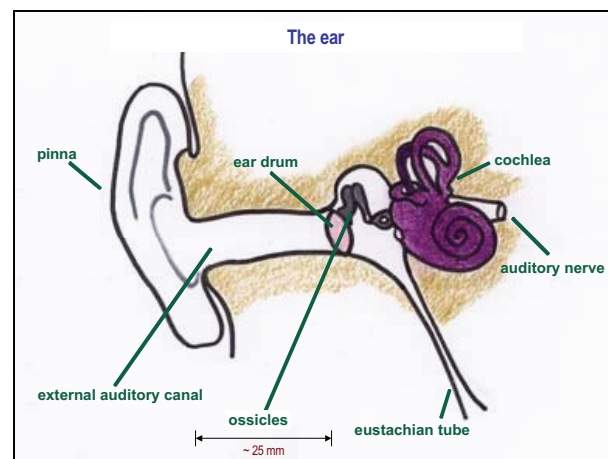


Figure 3 The component parts of the human ear

The complexity usually comes with hierarchies of meaning.

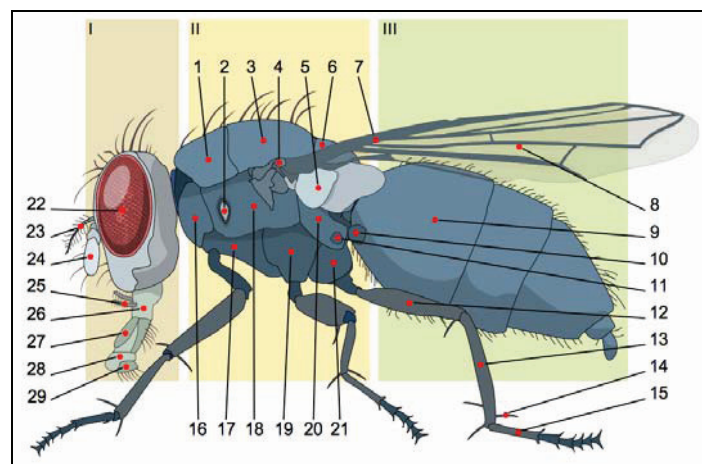


Figure 4 Anatomy of a housefly

<http://en.wikipedia.org/wiki/Image:Housefly_anatomy-key.svg>

So, in Figure 4, we can see that the fly is organised into three large segments: head, thorax and abdomen. Each of these has component parts. To separate the larger segments, colour shading (unfortunately not visible in the black and white reproduction) and Roman numerals are used (I is the head, II is the thorax and III is the abdomen). To separate each element of the segments, numerals are used and they are read in a clockwise direction from

top left (what each number represents is given underneath the image in a long list ordered numerically (not visible here). This might be easy for the designer but is it the most effective for the learner? Also, why do the numbers start with the thorax and so force the reader to deal with the thorax before the head? Is the thorax more significant than the head? If there is no significance, then it is misleading and it would be better to deal with (and hence number) the elements of each segment separately and begin with the head, then the thorax and lastly the abdomen.

If we imagine a classroom discussion about the component parts of something, we might be right in assuming that the teacher does organise the discussion in the lesson around the segments rather than the elemental parts but do the visuals used resonate with the arrangement of the classroom discussion?

Classifying Reports

Classifications are taxonomies according to a class of thing being sub-divided into sub-classes. The arrangement of the verbal text can usually be superimposed on the visual text. In other words, the verbal text that is based on the meanings represented in Figure 5 would typically be organised in the same way: the first stage would be a definition of rocks and a brief outline of the three kinds of rocks; the next stage would be comprised initially of a section on igneous, followed by a section on sedimentary and then one on metamorphic.

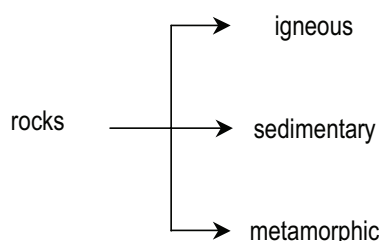


Figure 5 Classification of rocks

The important question for the teacher and students is why the taxonomy is organised the way it is. Does it match what the teacher wants the students to learn? Could it be organised in another way? For example, could igneous be at the bottom? What we see is that the taxonomy is not random at all. It is organised from the top to the bottom to represent the typical order of transformations of rocks: rocks begin as eruptions of igneous material from the depths of the Earth; these then get weathered and

deposited by various means; and then once deposited they are transformed through compaction and movements of the Earth. Representing it this way in visual and verbal texts would also be matched in how the lesson itself is organised so that what is addressed first in the lesson is according to the taxonomy. That would be an example of resonance working between the visual and verbal meanings and the sequencing of the activities in the lessons.

Ensuring the verbal text is arranged to achieve its purpose

Let us now consider an example where the verbal text itself is written in such a way that it actually does not achieve its intended purpose. Text 1 was written by a teacher to explain the flow of sound to the brain. A genre with such a purpose is referred to in SFG based genre theory as an explanation and, because it is organised according to the unfolding of time, it is an example of a temporal explanation – more specifically, it is called a sequential explanation.

Text 1

The pinna collects the sound waves. Then the ear canal directs the sound waves to the eardrum. They hit the eardrum and make it vibrate. The ear bones amplify the vibrations from the eardrum and pass them on to the inner ear. The cochlea changes the vibrations into electrical messages in the inner ear. These messages are carried to the brain along nerves.

The brain interprets the messages and we can hear the sounds.

The teacher began the lesson with working on the generic structure of Text 1 by having the students reconstruct the text – the text had been copied and then cut so that each sentence was on a separate strip of paper that had then been jumbled. This is a laudable task, which asks the students to construct the field of the text in a logical order. However, many of the students in the class were having trouble with organising the text. On reviewing the text, it was noticed that the problem was that it was supposed to be a sequential explanation yet its language patterns were more those that would be used in a descriptive report. Before we look at the issues with Text 1, let us reconsider the notion of flow in temporal (sequential) explanations. The purpose of a sequential explanation is to explain a

phenomenon by setting out a dynamic flow of events. For it to flow well, we would expect that the result of one action or event becomes the beginning of the next event and so on. In other words, the result of one event becomes the beginning of the subsequent event until the whole process is complete.

This flow in the meanings is realised in the orientations of the text, technically called in SFL the Themes. In English, Theme is realised by everything from the beginning of the clause up to the verb group (Martin and Rose 2007). Analysing Text 1, and focusing on sentences rather than every clause, we can see that the orientations (in bold below) of four of the seven sentences are to a component of the ear involved (pinna, ear canal, ear bones, cochlea) and a fifth is to the brain.

Text 1 Themes

The pinna collects the sound waves.

Then the ear canal directs the sound waves to the eardrum.

They hit the eardrum and make it vibrate.

The ear bones amplify the vibrations from the eardrum and pass them on to the inner ear.

The cochlea changes the vibrations into electrical messages in the inner ear.

These messages are carried to the brain along nerves.

The brain interprets the messages and we can hear the sounds.

This pattern of Theme is typical of the descriptive report genre, whose purpose is to give information about a list of features, and not the pattern that is necessary for an explanation of a dynamic flow of events, where the end result of one event typically becomes the orientation of the subsequent event. Let us then take Text 1 and rearrange its Themes so that it does construe the flow of a sequential explanation. Text 2 shows the orientations (in bold) that are possible.

Text 2

The pinna collects the sound waves.

These sound waves are directed by the ear canal to the eardrum.

The eardrum vibrates as the sound waves hit it.

The vibrations from the eardrum are amplified by the ear bones in the middle ear and are passed on to the inner ear.

In the inner ear, the cochlea changes the vibrations into electrical messages.

These electrical messages are carried to the brain along nerves. The brain interprets the messages, which we call sounds.

Simply by arranging the textual elements so that the text flows according to its generic purpose (to explain the active unfolding of a physical (or social) phenomenon) produces a text that for someone who is new to this field makes sense because it 'reads well'.

Temporal explanations are best represented verbally and visually (as in Figure 6) and, because they construe a dynamic flow of events, even better would be to provide animated visuals with language. Simulations or time-lapse photography are excellent resources for working with temporal explanations.

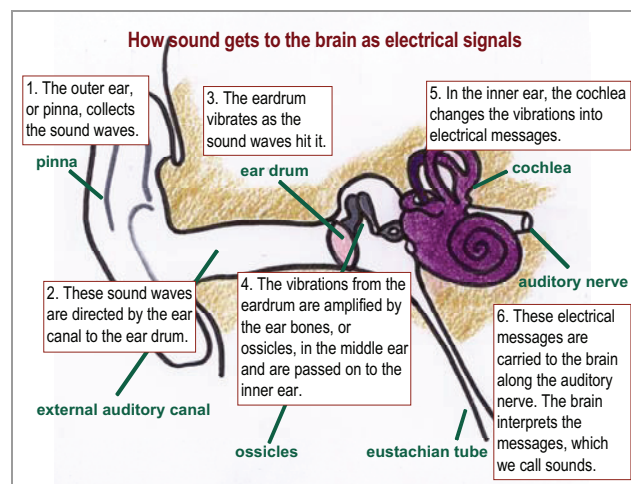


Figure 6 A sequential explanation (see Polias 2009)

When we see the verbal text situated within the visual text, we understand that, because we read English from left to right, the visual needs to be oriented in the way it is: left to right. Visually, we could have the cross-section of the right ear but it would be very awkward indeed to have the first text box on the far right with the next text box on its left. In a similar way, flowcharts, such as life-cycles, usually move in a clockwise direction for ease of reading.

The text, as presented in Figure 6, is actually macrogeneric (a text that is made up of more than one elemental genre) in that it is made up of both a

sequential explanation and a compositional report (the labelled cross-section.) In terms of learning, it would be more efficient to address the students' need to understand the technical terms (through definitions and descriptions) separately from the explanation of how sound waves (compression waves of a certain wavelength) get to be registered by the neural networks in the brain. And that is another principle to consider in the classroom; that it makes the work of learning much easier if the students do not have to work with multi-layered elements at the beginning stages of building an understanding of a certain field. This is not to say that the challenge of the task is reduced – it is in fact maintaining high challenge (Mariani 1997) – it is more a consideration of the manner of the support afforded the teacher and student (Kress et al. 2001).

We can see in Figure 7 how a physics teacher uses his nascent understanding about the flow of information in the verbal text so that it resonates with the visual (Polias 2007). Even though we cannot see the actual movements made by the teacher, we could imagine him linking with hand movements the highlighted elements in the verbal text.

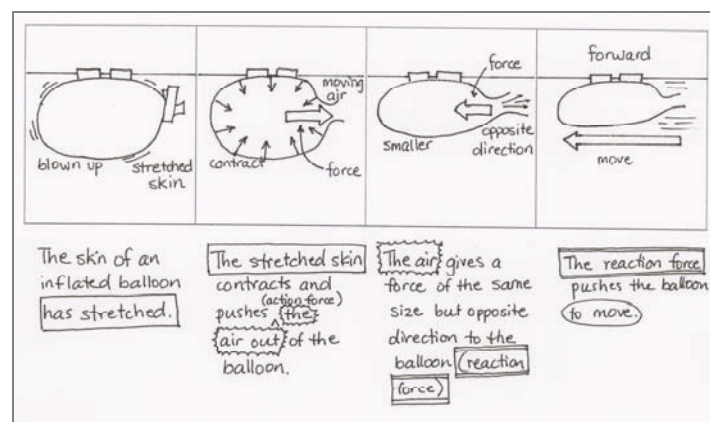


Figure 7 An explanation of the propulsion of an opened balloon

Conclusion

These few examples have attempted to illustrate the importance of resonance in our classrooms. If our teaching activities resonate with how the meanings are being made in the text – assuming that the texts themselves, in all their multisemiotic ways, achieve their purpose successfully – then the assumption is that the new meanings are more accessible and, hence, learning will be improved.

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BOOK REVIEWS

Multilingualism: a critical perspective

Adrian Blackledge and Angela Creese
Continuum, 2010, 254 pages, £24.99
ISBN: 978 0826 492098

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This book is part of a series entitled *Advances in sociolinguistics*, which aims, as it declares in its foreword, to 'blur the boundaries between sociolinguistics and other domains of study', drawing on 'social, cultural and political theory'. It fully deserves its place in the series, and has something to offer a wide and diverse range of audiences, including teachers, teacher-educators, researchers and policy-makers. The authors are well known for their writing about their research in complementary learning contexts in England, and this book extends this work. In some ways, it is a compilation of much of their previous writing on complementary schooling and goes beyond it by situating the research in its theoretical and methodological contexts and drawing out its implications for mainstream education.

The structure of the book supports the authors' purpose of weaving together the strands of research, policy and practice related to multilingualism. From the beginning, we are invited to walk with them into one of their research contexts, meeting the characters and experiencing the setting, as if beginning a story. With our senses engaged in this way, we are then asked, in the next chapter, to consider the arguments for regarding multilingualism not as 'the coexistence of parallel linguistic systems' (p. 16), but as a 'dynamic equilibrium' of plural linguistic practice with 'historical, sociocultural, political and economic processes'. These two chapters set the tone and lay out the scope of the book.

Chapters 3 and 4 then provide an account of both the research methodology and of the processes of research that the authors argue are the most

productive ones for understanding the phenomenon of multilingualism in its social, historical and political contexts. The nine vignettes in chapter 4, each written by a different researcher in the team that carried out four case studies of complementary schools in different cities in England, are one of the highlights of the book. They show how the theoretical issues of reflexivity, subjectivity and researcher identity are central to ethnographic research and illustrate how they are played out in its practices.

Chapters 5 to 8 form the core of the book. In each, the authors make extensive reference to the findings from the project to develop a theme, which they link to the developing theoretical and ideological arguments. In chapter 5, we see the ways in which a notion of 'language separation' is articulated in the schools, while at the same time both teachers and learners practise 'flexible bilingualism', calling on their full range of language resources to accomplish the teaching and learning. Chapter 6, which largely focuses on the voices of the learners, shows how they construct 'second lives' in the classrooms to mock and thus subvert some of the schools' declared purposes of transmitting 'cultural heritage'. In chapter 7, the role of traditional folk tales is explored, with a focus on one of the Chinese schools. This opens up a discussion of biliteracy practices and their potential for learning. Finally in chapter 8, the notion of 'language heritage' is examined, which leads to a consideration of parents' participation in their children's learning and their views on maintaining their communities' languages. Thus, cumulatively, the chapters develop a composite picture of the research participants, and how they simply get on with their lives. In doing so, they reveal the contradictory and complex ways in which multilingualism plays out in Britain today. At the same time, they raise key issues, which are addressed in the closing chapters.

The issues explored in chapters 9, 10 and 11 invite us to view complementary schools on a wider scale from the earlier chapters and so lead us to fuller consideration of some of the educational, ideological and political strands woven through the book. In chapter 9, the authors report that the theme of 'nationalism' emerged as an unexpected category in their field notes and observations. They present an account of the history of the 'oppositional discourse' (p. 183) surrounding the concept of nationhood, and then demonstrate how this is played out in 'the local' through examples of the

pride and resistance demonstrated between teachers and learners in the classes. It would have been interesting if some of the discussion in this chapter had been extended to take account of another key factor in nationalism - religion, and specifically Islam. It is understandable that this specific theme may not have arisen from the field work in the particular contexts in the research, but there is no doubt that it is emerging as a significant issue in debates about language ideologies and education in Britain today, as work in different communities has shown (Hall et al. 2002). Moreover, other work by Blackledge (2004) reveals the dangers of pronouncements, on the part of politicians, which are careless of the interplay of religious and cultural factors in debates about nationality and citizenship. Chapter 10 introduces a relatively new word into the multilingualism scene, translanguaging, and explores its pedagogic possibilities. While it may be optimistic to think that translanguaging will soon be taken up as a mainstream classroom approach, it is valuable to have a clear articulation of its potential at this time. Finally, chapter 11 widens the scale in space and time to consider the future of multilingualism, while taking us back, in its final sentences, to the lives of members of the communities with whom we began.

Multilingualism: a critical perspective has much to offer teacher-educators and mainstream teachers. First, it provides a way of looking at and thinking about language diversity and multilingualism which disrupts the normalised, deficit model still enshrined in national policy and ideology and much of mainstream classroom practice. Second, it begins to articulate a pedagogy which views languages as positive resources for learning and identity performance, focusing on 'the user rather than the code' (p. 31), and which has the potential - already being revealed in other countries - to open out bilingual pupils' opportunities for success. Finally it provides a wealth of stories about the lives and families of young people in contemporary, multilingual Britain who are pupils and students in mainstream classrooms, but about whom their teachers may know little. For researchers, and particularly PhD students wishing to develop their own projects in multilingualism, chapters 3 and 4 should be essential reading. They offer, not just an overview of the field of research broadly defined as 'linguistic ethnography', but of the detail of how it has actually been done by one team of researchers. In this way, it provides a rich illumination of the processes of researching in multilingual contexts,

something not often found in methodology texts or research reports. For policy-makers and politicians, should they have the inclination to read, there is a set of arguments, well-supported from research and practice, for moving from language and education policies that prescribe the need for us all to 'speak the same language' (p. 9) to ones that promote genuine diversity and inclusion through respecting and valuing the different ways in which learners engage with languages.

The only real criticism I have of this book is its title. It does not do justice to its full scope and accomplishments, and so perhaps will not immediately speak to the wide audience it should attract. The critical perspective is achieved in the way that the authors contextualise their research and the issues it raises squarely within the problematic public discourses about the phenomenon of multilingualism in Britain today. But they also open out and illuminate the processes of research that allow us to explore the lived experiences of particular communities of multilingual British citizens. In doing so, they reveal - for those who wish to see - the textured detail of their lives, the tensions and contradictions that are woven through their days and the creative, life-affirming and 'carnival' ways in which they live them. In this way, Blackledge and Creese show that multilingualism should not primarily be seen as a hugely problematic set of issues to be theorised by researchers or contained by policy-makers and teachers, but that - for the growing numbers of those who benefit from its advantages - it is simply an ordinary feature of life. This is the most important message of the book, for all its readers.

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English as an Additional Language: Approaches to teaching linguistic minority students

Constant Leung and Angela Creese (editors)

Sage Publications, 2010, ISBN: 9781847 875327, 129 pages, £18.99 – £12 to NALDIC members via NALDIC website

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This new book is a significant and valuable resource that provides rich insights into the many challenges and opportunities teachers face when teaching in diverse classroom contexts. The contributions in this edited volume examine important issues and look at ways in which to maximize learning experiences for pupils learning English as an additional language. The book draws on the expertise of many teacher-researchers across national and international contexts and successfully outlines many of the commonalities of the challenge. This timely book is intended for teachers and teacher educators working in the field of teaching English as an additional language and offers practical strategies and approaches for meeting the cultural and linguistic needs of language minority pupils. It provides insightful and pragmatic explorations of ways in which to bridge the gap between the 'ideologically laden' discourse of policy and effective classroom practice.

The book is divided into eight chapters with each one exploring a particular topic situated in real-life teaching and learning environments. The insights gained from a consideration of the topics within each chapter provide teachers with knowledge on how to adapt and extend teaching practices which promote participatory learning opportunities for language minority pupils. At the conclusion of each chapter there are thought-provoking questions that encourage further exploration of the area under discussion, which also serve to challenge existing beliefs that currently shape and inform pedagogic choices within diverse classroom contexts.

Chapter 1, 'Communicative Language Teaching and EAL: Principles and Interpretations', sets the scene

by outlining clearly the progression and developmental nature of Communicative Language Teaching (CLT) and English as an Additional Language (EAL) in the Curriculum over a period of time. It contextualizes the varying ways in which theory has previously informed practice. The chapter also raises questions about the ways in which teachers can facilitate the development of communicative competence and embed a linguistic focus that will enable linguistic minority pupils to fully participate in mainstream content classes.

Chapter 2, 'Mainstream Participatory Approaches: From Slipstream to Mainstream', promotes mainstream classrooms as rich language learning contexts. It outlines clearly the ways in which the discourse within policy attempts to engage with the challenges and opportunities that diversity brings to British school contexts. The chapter also looks at the importance of integrating language and content across the curriculum and draws on the insights gained from Australian contexts that have adapted and implemented Halliday's systemic functional linguistics framework. It explores the findings of recent studies informed by Halliday's approach and exemplifies how language is used within particular key history genres. While the author notes that the use of this framework is progressive in terms of the integration of content and language, he also points out that there are still bigger conceptual changes that need to take place at a policy level in order to ensure a truly inclusive curriculum.

Chapter 3, 'Beyond Key Words', successfully links research and classroom practice. This chapter encourages the reader to consider the multidimensional elements which contribute to language development, with a particular focus on the acquisition of vocabulary. It enables teachers to consider the processes of teaching and learning vocabulary within classroom literacy events. Suggestions for practice are firmly embedded within a research framework and clearly establish the interdependent processes involved in the participatory nature of specific literacy practices and the acquisition of new words. The chapter then explicitly demonstrates what is meant to 'know' a word at a deeper level and outlines Nation's (1990) list of the various ways learners need to know a word in its entirety (p. 40):

- The meaning of the word(s)
- The written form of the word
- The spoken form of the word

- The grammatical behaviour of the word
- The collocations of the word
- The register of the word
- The associations of the word
- The frequency of the word

The chapter argues that teachers need the support of further training to help them to analyse subject content through a linguistic lens. This would sensitise the mainstream context to the specific challenges that linguistic minority pupils face when they meet the varying demands of content subjects. Such provision has implications for teacher development programmes.

Chapter 4, 'Connecting Communication, Curriculum and Second Language literacy Development: Meeting the Needs of "Low Literacy" EAL/ESL Learner', skilfully alerts the reader to the very real challenges faced by ESL learners, who have not had the opportunity to develop literacy in their first language. It shows clearly the distinction of needs between 'low literacy' ESL learners and those ESL learners 'with age-equivalent literacy' in their first and additional language(s). The varying backgrounds of these learners impact on their ability to function within a school environment where they are faced with a myriad of challenges. The author draws on a constructivist approach to learning and challenges teachers to provide social opportunities for 'low literacy ESL learners' so that they can demonstrate actively what they already know and then link it to their current learning experiences. The chapter outlines to teachers some of the ways in which they can provide a culturally and linguistically sensitive pedagogic approach which will allow 'low literacy ESL learners' to flourish in their development of initial literacy using a new language.

For learners developing initial literacy in an additional language their knowledge of the language system will be partial and limited, particularly in the early stages of learning, and so knowledge of words and sounds may not provide the clues they can provide to children developing first language literacy. (p. 47)

The author challenges some teachers' 'faulty perceptions' that suggest that such learners bring 'nothing of value' to literacy events and he encourages teachers to elicit the key, valuable

knowledge that 'low literacy learners' bring from their own cultural background and life experiences.

Chapter 5, 'Teaching Approaches in Two-Teacher Classrooms', explores the nature of interactions between teachers and pupils. Dialogues are examined within 'two-teacher classrooms' (EAL and subject content teachers) which illuminate the questioning techniques used during classroom talk. Mehan's (1979) questioning types are used as an analytical framework to analyse teacher dialogues and demonstrate a possible basis for fostering 'message abundance' (p. 61). These questioning techniques enable teachers to provide scaffolded opportunities where learners can use what they already know as a point of departure for further interaction and learning. The author notes that the role of teachers in a two-teacher classroom impacts on each teacher's sense of identity, each of which operates from an existing set of beliefs. These beliefs, which are socially structured and 'context-bound' (Kalaja and Barcelos, 2006), are reflected in the interaction patterns of both teachers. The chapter offers practical examples of how to engage in more effective classroom talk with language minority pupils and encourages teachers to reflect on the link between their different roles and beliefs in order to bring about valuable change.

Chapter 6, 'Content-Language Integrated Approaches for Teachers of EAL Learners: Examples of Reciprocal Teaching', provides classroom excerpts demonstrating ways for teachers to utilize 'reciprocal teaching' (RT) strategies to develop reading for language minority pupils who are at varying levels of language proficiency. The chapter provides vibrant accounts of reading events within real-life classrooms and emphasises reading as a social process.

The authors demonstrate clearly the flexibility of using 'reciprocal teaching' techniques with very different classes where teachers have the freedom to adapt and supplement the approach to meet the needs of their classes. The techniques enable pupils to explore texts, beginning at their current levels of knowledge and ability, and extend these through interactive processes. RT allows language minority pupils involved in the reading event to explore vocabulary in meaningful contexts; to activate the use of specific reading strategies to promote comprehension; to focus on form at a sentence and discourse level and to integrate the discussion of language and content to enable pupils to gain the

academic language required to successfully access the curriculum.

Chapter 7, 'Sociocultural Approaches to Language Teaching and Learning', posits the benefits of a sociocultural approach to English language teaching. The author of this chapter looks at the ways in which language is socially constructed, whereby learners develop literacy through "apprenticeship or socialisation into the social practices of a particular discourse" (Gee, 2008).

The author challenges the 'faulty belief' that views collaborative opportunities alone as a magic formula for developing language. This chapter links to other chapters within the book in that it reminds us first to determine what pupils already know in order to build on their existing schema:

Sociocultural theories, however, tell us that children do in fact come replete with knowledge, language skills, and rich family and community resources. They are simply different from what school people know to look for and recognise. Thus students receive the message about who they are and what they know does not count in this new environment. (p.100)

Within this stimulating chapter there are explicit narrative accounts that illustrate the different knowledge resources that pupils with varying backgrounds bring to a school discourse community. Taking these things into account enables the language minority pupil to become an 'active and equal participant' (p. 105) within the classroom. The application of such an approach breaks down the pedagogic barriers to learning and provides a space for language minority pupils to become dynamic members within the classroom. This has implications for identity formation for language minority pupils. The opportunity to make valuable contributions to the learning process not only establishes a multicultural voice within the lesson, but allows pupils to explore and interpret their new experiences in a safe and inclusive environment.

Chapter 8, 'Bilingual Approaches', outlines the multiple ways in which bilingual provision is structured in various contexts. It outlines the continuum through which bilingual learners develop. This chapter situates bilingual learners as an integrated part of the whole schooling process and notes, "in its broadest sense, integration refers to bringing together different parts, on an equal basis, to make a whole (Brisk, 1991). It proposes

that where linguistic and cultural diversity are successfully integrated into the school context, diversity is viewed as a strength which adds value to the school environment. It also demonstrates practical ways to integrate bilingual strategies within teaching contexts to enable classroom teachers to utilise the skills and expertise of bilingual assistants during the processes of teaching and learning.

In summary, this book has a number of themes running throughout its chapters which enrich, extend and support each other. It draws successfully together various complex strands operating within linguistically and culturally diverse classroom settings and provides explicit practical examples which practitioners can easily employ. It draws upon insights from national and international teaching contexts which outline the many commonalities and experiences that are shared across the world. I would wholeheartedly recommend this book to teachers and teacher educators who welcome challenges to their own beliefs and who wish to develop further and implement theoretically informed practices as they embrace the exciting challenges and opportunities of teaching in multilingual classrooms.

Multilingualism in Mathematics Classrooms: Global Perspectives

Richard Barwell (editor)

Multilingual Matters, 2009, ISBN 978-1-84769-204-7, £24.95

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Introduction

A few weeks ago in a meeting in a London Secondary school, a Turkish bilingual teaching assistant told me, 'Our students do well in maths, because the language is not a problem'. If this were universally true, it would not be the case that in many areas of the UK, bilingual learners are actually doing less well in maths than they are in English. This book is for those of us who have either echoed or tried to reframe such comments over the years. It starts from the premise that being bilingual whilst learning maths in English is not a problem but it is different and does create tensions. Barwell has gathered together examples of research from maths classrooms across the world that illuminate key issues of pedagogy, learning, assessment and policy in an area of the curriculum that has hitherto received little attention from linguists. He challenges us to move our thinking beyond the internal, cognition based aspects of learning maths in a new language, to consider the nature of mathematical thinking and learning in a variety of socio-linguistic contexts and learning environments.

In his introductory chapter, Barwell first reviews studies that have tried to answer the question, 'does multilingualism have any effect on mathematical attainment?' He then proceeds to introduce three tensions in the research that provide a framework for the subsequent chapters. The first tension is that of language proficiency versus maths proficiency and he summarises research, much of it from South Africa, that has found evidence of causal links between the two. He then details the tensions for learners who are moving from using informal language to talk about maths towards more formal academic language proficiency. The third area of tension covered is the relationship between the students' home languages and the official language of schooling.

Summary of chapters

The chapters in the books all fall within the sweep of one of the three identified tensions. The first section looks at the nature of mathematical language itself. Frank Monaghan describes how he used concordancing tools to make a systematic analysis of the language used in a maths programme (SMILE: <http://stem.org.uk/cx3e> for free downloads). As ever, his chapter contains both linguistic insights and practical suggestions and ideas for classroom teachers wanting to develop their own materials and resources.

In Chapter 2, Susan Staats, an ethnographer who teaches algebra at University level, writes about her fascinating research into the use of metaphor in Somali mathematical language. She was able to draw on her understanding of anthropological methodology to explore the relationship between culture and mathematics.

There are three chapters which focus on the experiences of bilingual learners in classrooms working on mathematical tasks: Anjum Halai explores how students' interpretation of certain words in Urdu and English can become significant in their understanding of a maths problem. She shows how learners using two alternative translations of the Urdu word for 'stronger' reach different understandings about the concentration of water and juice in different ratios.

Barwell's own chapter also discusses how multilingual students interpret word problems, and in particular how they learn to bring their own experiences of the world to bear on the unreal world of the written mathematics problem. This section of the book ends with a chapter by Judit Moschkovich who writes about two Spanish-English students in the United States explaining their different interpretations of the scale on the axes of a graph. She shows how the teacher avoids evaluating the mathematical reasoning and stands back to allow the linguistic meanings to be explored in depth first.

The last part of the book gathers together four chapters situated in countries that have bilingual education policies and focuses on classrooms where all learners may be studying maths in another language, often where English is the official language of schooling, chosen because of its perceived high status.

In Chapter 7, Marie Therese Farrugia writes about mathematics teaching in Malta. Dylan Jones in

Chapter 8 writes about a bilingual school environment nearer to home – Wales. He not only describes the bilingual contexts of Welsh secondary schools, but also discusses the organisation of learning, design of resources, and the nature of assessment in two languages. In the next chapter, Kathryn B Chval and Lena Licon Khisty talk about a project working with bilingual Latino students who used the process of drafting in writing about mathematics to develop their language as well as their thinking. Finally Philip Clarkson describes a model he has developed to promote the use of multilingual students' other languages as they learn maths in English.

In his final chapter, Barwell returns to the tensions identified at the outset and places them in the broader social and global context, considering the relative status of different languages for learning or as in the case of Wales, a mother tongue maintenance policy. He draws attention to the fact that in many of these examples, the teachers themselves are bilingual and are able to engage with learners in two languages. However, he questions the extent to which bilingual learners in the US or England are encouraged to use their home language to make sense of the formal mathematical language of the classroom and argues that more research is needed in this field.

Conclusion

As an educator who has spent many hours observing and working with maths teachers and bilingual learners, I found this book highly stimulating. It is not difficult to read, as another reviewer has pointed out “The editor has astutely provided some of us who regard mathematics as a challenge with a book worth reading.” Not only does it provide insights into the nature of mathematical thinking in a socio-linguistic context, but it also provides countless ideas for developing classroom practice, and opportunities to reflect on the nature of the dialogue bilingual learners need to extend that mathematical thinking. I particularly enjoyed Staat's chapter on metaphor in Mathematics, reflecting that our own 'English' mathematics terminology is also highly metaphorical, having been borrowed from Greek or Latin, for example, polygon (Greek) means 'many knees'. And many of the common mathematical words that bilingual learners find difficult (e.g. difference, take away, face) are in fact being used metaphorically.